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TOWN PLANNING.

J. C. MORRELL, A.R.I.B.A.

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1915.

TOWN PLANNING.

REPORT

TO

THE HONORABLE THE MINISTER OF PUBLIC
WORKS

BY

J. C. MORRELL. A.R.I.B.A.

By Authority

ALBERT J. MULLETT, GOVERNMENT PRINTER, MELBOURNE.

TOWN PLANNING.

Public Works Department,
July, 1915.

The Honorable the Minister of Public Works.

SIR,

I have the honour to present to you a Report from investigations made during an official visit to England, Scotland, and the United States of America on Town Planning.

The information contained in this Report is intended to show what is being done in other countries to avoid the danger, as threatened in most cities, by insanitary conditions, bad housing, and bad town planning, and to illustrate also what may be done in Victoria for the improvement of our cities, as well as for the health and welfare of our citizens.

The planning of a town is not a new idea, but the carrying out of any portion of its growth, towards a completed scheme, had fallen into disuse until recent years. Other countries have awakened to the necessity of providing for town planning legislation, and are reaping the benefits which experience shows are always derived from scientific planning.

The development of a city has to be arranged by the study of its conditions and tendency, its inhabitants, its life and industries; but its future expansion can and should be controlled and provided for by taking into consideration the surrounding country, and allocating certain areas for the specific purposes to which they are best adapted.

The natural tendency is towards concentration of industry and commerce to obtain greater efficiency. It certainly does this, but at the expense of the vitality of the population. Rapid transit and cheap transportation, with modern facilities, should make possible the distribution of the people to centres containing healthy homes and pleasant surroundings. It is being done in other countries, and I think there is room for much improvement here.

Town planning schemes should be carried out in stages. Legislation must provide power which must be ample and comprehensive; the special interests of individuals have to be disregarded—they will fall into their proper place and adjustments made in the later stages.

Generally speaking, there appears to be a little uncertainty in regard to the meaning of the developments known as Town Planning, Garden City Planning, and Garden Suburb Planning; each naturally deals with many questions that are common to them all; but the accepted interpretation of the terms may, I think, be taken, under normal conditions, as follows:—

Town Planning embraces the consideration of everything appertaining to the welfare and safety of civil life and civic progress; the great fundamental principle of town planning is the essence of city life, is the care of the citizens' health, and the proper housing of the people. Healthy conditions of the various sections which together build up and form a city constitute an essential for its successful development, and must be organized under proper control and maintained within that community.

It relates to all questions of road construction and its connexion to traffic and transportation; to the construction and design of buildings with the limitation of building heights; to sewerage and sewage disposal; to water supply and lighting; to parks, boulevards, recreation grounds, public buildings, harbors, and railways; to the replanning of existing cities and their extension so that, by foresight and imagination, anticipated progress and health may be amply provided for in advance, by many years, thus avoiding costly alterations, as well as inconveniences arising from haphazard growth and expansion.

The Garden City is an enterprise, usually carried out by private individuals, in which an undeveloped area of ground is taken up at a distance from some town, and a complete city designed and constructed for the purpose of transferring manufacturing and other industries from existing centres, as well as the creation of new industries within the new city, and provides for the location and area of the manufacturing section, which is limited to a certain zone, on that side where the prevailing winds blow the smoke and fumes from the city. Likewise certain areas are allotted for the housing of workmen and others, for business premises, for civic buildings, for schools, and for parks, play-grounds, &c.

Streets are laid out according to the topography of the site and of widths varying to the necessities of traffic, and everything is done that is possible for the health and convenience of the people in such a form that can only be accomplished in the creation of an entirely new and complete city, and it is so designed from the outset.

One of the interesting and fundamental principles in this type is that the conversion of the value of the original land into building value goes to the community that creates it. That is to say, the whole of the profits obtained from the development, after paying, say, 5 per cent. on the capital spent, is returned for the benefit of the citizens.

The Garden Suburb is also generally a private undertaking, and is nearly always a development or suburb on the fringe of, and an extension to, some existing town, providing for housing people of different classes and arranging for proper communication and transportation to the adjoining town, but designed as a separate unit, containing everything that thought and judgment can create for the healthfulness and convenience of the citizens, including such necessary features as recreation reserves, parks, boulevards, preservation of natural picturesque wooded lanes, the allocation of shopping in certain zones, prevention of through traffic, with its attendant noises, in the residential sections, &c., so that, generally speaking, the suburb may represent ideal conditions for home life.

The disadvantages accruing from haphazard and irrational developments in all parts of the world, as carried out by individual and company property-owners, whose object was to obtain the greatest financial gain, without taking into consideration the menace, so created, to proper city progress, as well as to the health and welfare of the community, drew attention to the fact that the evils arising from the housing conditions of congested and badly-planned areas in ancient cities, were being encouraged and the conditions themselves more or less repeated by these people, to the detriment of the various cities and their communities.

Nearly every one is acquainted with examples of bad housing and bad sanitary conditions in some form or other, for they exist in all cities and towns, and almost in every village. Consequently, it is not surprising to find in Great Britain, where facilities for making investigations regarding this question are more numerous than in newer countries and where the results of bad housing are forced so directly and continuously upon the citizens, that public interest was early aroused in town planning and the necessity for preventive measures.

As popularly understood, town planning would seem to have but little connexion with housing, probably owing to a wrong impression as to what town planning really consists of. The term naturally suggests such ideas as beauty of architecture, traffic regulation and transportation, the city beautiful, &c., without including the fundamental questions of city life and development. However, the accepted definition of the term in Great Britain, and as it is generally being understood in America, covers everything regarding the city itself and all that influences the health and welfare of the citizens; therefore housing, sanitation, transportation, general improvements, architectural beauty and design, street formation, and traffic convenience and regulation, &c., are all included to enable a satisfactory means of studying and solving the problems caused by their relationship to each other.

The Garden Cities and Town Planning Association in Great Britain, founded by Mr. Ebenezer Howard in 1899, with the object of promoting town planning, advising and drawing up schemes for garden cities, garden suburbs and villages, housing, improvement and sanitation, collection and publication of information relating to these subjects, educating the public opinion by lantern lectures, conferences, &c., influencing and promoting legislation and improving local by-laws is a voluntary association dependent entirely on public support, and is not engaged in any commercial enterprise. This association has probably done more than any other combination of men to demonstrate that the proper solution of the problems arising from bad town planning could only be overcome by legislation. The National Housing and Town Planning Council of London have also worked unceasingly, and by numerous publications and conferences drawn the public attention to the necessity for legislation in regard to town planning, and after many years of enthusiastic work, in fanning the growing interest of the public and their representatives in Parliament, have had the satisfaction of seeing the existing town planning Acts become law, operating in England, Wales, Scotland, and part of Ireland.

Canada awoke to the necessity of town planning six years ago, when the first national conference on town planning took place. The Commission of Conservation, which deals with the important questions relating to the conservation of minerals, forests, productivity of fisheries, agricultural lands and all the natural resources from which man derives his livelihood, realized how important it was to preserve the health and happiness and the vigour of the individual, and the efficiency of the human unit, and so arrived at the conclusion that the public health was an important portion of the work the Commission should devote itself to, and in so doing came into contact with the necessity for close, careful, and systematic attention to the planning of the towns and cities of Canada, and the housing and general conditions under which the citizens were called upon to live.

In May, 1914, the Sixth National Conference on City Planning was held at Toronto, where the Commission of Conservation acted as host.

Canada recognises the necessity for legislation to successfully combat the evils which town planning and housing are intended to overcome. The provinces of Ontario, Alberta, and Quebec have at the present time legislation of such a character that it undoubtedly makes for substantial progress.

A draft of a Model Town Planning Act was presented at the Toronto Conference, which it is hoped the various provinces will adopt.

The Commission of Conservation have also engaged for a period of three years Mr. Thomas Adams, formerly town planning expert to the Local Government Board of Great Britain. He has visited various cities respecting the possibilities of their localities and environments, and the best methods of carrying out to completion the various plans for betterment, &c. He is also to visit the provinces to urge upon the respective provincial Governments the adoption of the Model Act.

The movement is also being strongly developed in the United States of America, where the National Housing Association publish works, advocating the necessity for town planning legislation, and papers by eminent men relating to housing conditions.

The principal cities throughout the States have city clubs composed of architects, engineers, and the principal men of each city, who have combined for the purpose of considering all questions relating to the proper development of their city in all its phases. They are progressive, and own suitable and complete club premises, many of which are residential. Sub-committees are formed to deal with separate subjects. Lectures of general interest are held periodically. Literature dealing with the progress of town planning in all parts of the world can always be found on the tables of the reading rooms, and visitors from other cities interested in the subject usually make these clubs their head-quarters. The object of these clubs is to foster the home town interest and watch and advise in all matters concerned with the progress of the city and welfare of the people. They are looked upon by the city authorities as being most valuable in regard to information which can be obtained from them, and their advice is eagerly sought in the matters that are dealt with by the clubs.

This national movement and national interest has grown out of the experiences gained prior to any legislation dealing with town planning, when it was found that, although many improvements were being carried out in some new developments (and a considerable number of property owners realized the advantages to be obtained from scientific planning and proper housing), there were others who did not or would not consider the national interest, and who were forming congested areas for personal gain, so that, while a proper state of development and progress was being created in one portion of a city, much was being done to neutralize the effect, as far as the city itself was concerned, as a whole.

As general interest became more pronounced, this defect emphasized the necessity for legislation and helped considerably in the Town Planning and Housing Acts becoming law.

The object of the Act is to secure effective town planning, and schemes conforming to the requirements of legislation. Town planning to be successful necessitates the co-operation of adjacent municipalities and their agreement to a comprehensive system of control and development, and legislation must provide some authority for purposes of practical co-operation and to arbitrate on points of difference, as well as some independent authority to act as arbitrator where questions arising for the good of the community come into conflict with property interests. Such authority, being a Court of Appeal, should be a part of the Government organization, and it has been found necessary, in all cases where legislation provides for town planning, to have this Department to make matters of general application and to secure the necessary co-operation.

It has been found in practice that this does not interfere with local government, but rather enables more discretionary power to be given, and links the city government with the State or provincial management and gives added value to the security offered by the city when funds are required.

In the past communities have been content with general regulations and, no doubt, many people may think that a measure of this kind, with drastic provisions, may go so far as to interfere with the liberty of the subject and that its effect, in consequence, may interfere with the industries and growth of a city, in addition to upsetting ordinary conditions and producing new difficulties, although good effects result from the legislation: but it has been found beneficial to the whole community wherever the law has been brought into operation, and is now welcomed by every one as the means of increasing the prosperity of the city, as well as the health and efficiency of the individual.

The advantages and benefits obtainable under the Housing Town Planning Act of 1909 in Great Britain may be described briefly.

According to the Act the councils of any borough or urban or rural district are made the town planning authorities, and the London County Council to the administrative county of London.

A scheme may be prepared, by an authority, respecting land being developed or likely to be used for building purposes, in order that proper sanitary conditions may be secured and that agreeable surroundings, as well as convenience, will result with the laying out and use of the land, including that to be used for building purposes, open spaces, roads, parks, &c.

It is not necessary that a scheme be limited within the municipal boundaries of the authority that prepares it, but may be submitted on behalf of a joint body, constituted specially for the scheme, representing several municipalities, and so preventing the isolated development of separate building estates in such a manner as to be detrimental to adjoining properties or municipalities. Provision is also made for the removal of existing buildings which may interfere with the scheme as submitted, but for which proper compensation has to be paid.

By the Act, local authorities are enabled to control the future growth of a town, and may allocate separate suitable areas for manufacturing premises, business centres, and residential buildings, making arrangements in advance for the necessary municipal and other services, laying out streets, in the best direction for the convenience of traffic and of the residents, of such widths as may be adequate for eventual service, and so

avoiding the possibility of costly widenings in the future, making all necessary arrangements for sewerage and sewage disposal, water supply, and lighting; future requirements for reserves may be provided for economically; overcrowding may be prevented by the limitation of the number of houses to the acre; and pleasant surroundings may be arranged for the inhabitants. The creation of slums can be prevented and the enormous cost of their removal, as in existing cities, can be avoided.

The Act prevents builders from crowding houses on small allotments or erecting buildings which will depreciate the value of residential property. It provides for the preservation of trees and houses or features of historical interest.

If any authority decides to submit a town planning scheme notices have to be served on all affected parties, and a public meeting called within a fortnight from the time the notices were served, and within two months application can be made to the Local Government Board for permission to prepare the scheme.

Immediately this application is lodged by an authority any work carried out, within the area covered by the scheme, is done at the owner's risk, and may be removed without compensation being paid, if it interferes in any way with the proposed scheme.

There is no necessity to submit a scheme in detail, and it usually only contains the general lines of development. The details are decided at subsequent conferences with the Board, land-owners, and every one affected in order to obtain the best possible scheme which will be fair to all.

Depreciation in the value of property takes place in all cities and towns from many causes, which under town planning legislation would be prevented. Many estates, which have been developed with good houses on suitable sized allotments, are frequently deserted, on account of adjoining properties being cut up into small allotments, with crowded cottages or possibly utilized for factories, shops, picture palaces, or some such building, not desirable in a residential district. Uncertainty as to the development of adjoining lands causes uncertainty with property-owners as to the type of building to be erected and who, in developing the estate, may have, at great cost, to provide for through connexions to means of transportation.

All these defects are provided for by the Act, and when the general plan of the district is being prepared, an owner, as provided by the regulations, has every opportunity of putting forward his own views. He will also know for what purpose the particular district is to be developed, the class of property, and restrictions as to number of houses allowed, consequently he can proceed with the development of his land on the best lines without fear of depreciation of values or surroundings, as the conditions for the settlement of the district will be permanent.

Open spaces and parks are settled on for the neighbourhood, and properties adjacent to these can be offered as having permanent attractions.

Main traffic and tram routes are fixed. An owner can arrange to give up wide widths for traffic routes and, having done this, can settle with the authority that his residential roads shall remain quiet and sheltered, having narrower roadways than the standard roads, which reduces their cost.

If his estate is cut off from railways or trams, he can arrange for such connexions as may be necessary, without cost.

If a scheme is prepared, provision is made that all land-owners are to be consulted at every stage and opportunities given for each one to see that his own land is schemed to the best advantage. At the same time if, in the general interest, any owner suffers any real hardship, he is then entitled to compensation.

In the case of any authority failing to prepare a scheme, owners may do so, in order to prevent bad developments likely to depreciate their own lands or adjoining lands.

No compensation is payable with regard to regulations which prescribe the space about buildings, or limit the number of buildings to be erected, or prescribe the height and character of buildings.

No compensation is payable with respect to any provisions in the scheme which could be enforced under existing By-laws.

If the scheme improves the value of any property, half the increased value may be claimed by the authority from the owner. This right of sharing enables claims for any compensation to be practically cancelled when estimating the cost of a scheme.

The above describes generally the principal features of the town planning of 1909, and in order to give some idea of the use it has been put to, the records of the Local Government show that from the time the Act became law in 1909 up to the end of 1913 over one hundred and sixty (160) cities, towns, and districts had prepared schemes or lodged applications for their preparation.

One of the most extensive schemes which have been approved is that of the Rinslip-Northwood Urban District Council, containing 5,906 acres in the rural district of Watford, lying within the fifteen mile radius of London, and the scheme having been approved by Parliament cannot be altered without its consent.

Some of the items taken from the schedule in the *Government Gazette* of 7th September, 1914, will give an idea of what can be dealt with in one scheme.

Residential, shopping, and factory areas, parks and open spaces, and their positions are all fixed in the general lay-out of the town. The main arterial roads and their widths are also settled definitely.

Provision is made with regard to :

The location, direction, and width of new streets, and method of meeting their cost.

Widening existing streets, the adjustment of street boundaries, the naming of streets, and the relaxation of local by-laws in regard to streets where necessary.

Plans and subdivisions in all cases being submitted to local authority (should circumstances subsequently alter the case, provision is made for modifications of plan).

Existing highways being diverted or stopped where necessary.

Land for public open spaces, garden allotments, and cemeteries being appropriated at agricultural values.

Reservation and maintenance of land for private open spaces.

Securing sufficient air space by fixing building lines and room for widening streets as may be necessary.

Building subdivisions, which may only be utilized or covered in the following proportions :—Shops, half of area ; dwellings, one-third of area ; but provision is made for reducing the proportions where groups of buildings have frontages to more than one street.

Fixing cubic capacity per person to rooms, and window space to floor area.

Limitation of building to each acre—twelve houses being the average and twenty the maximum on any 1 acre.

Fixing height of buildings (maximum 60 feet, and in no case to be higher than width of street), and heights of fences.

Providing alterations to architectural design if considered unsuitable to site.

External larders for food.

Prohibition of advertisements which interfere with the pleasantness of the surroundings.

Recovering one-half of any increased value to land by carrying out the scheme.

Much more is included, such as giving powers to prevent unreasonable claims for compensation, disallowing the erection of any building during the preparation of the scheme which would cause obstruction.

This scheme has been carried through with the consent of all the owners, and it is claimed that the benefit derived is in excess of any loss suffered ; and at the same time public health gains immeasurably and permanently, slum conditions become impossible, and the evils of existing housing conditions are prevented.

Small houses have been erected for the accommodation of the working classes and those earning small salaries, in pleasant surroundings, as usually reserved for well-to-do people only. This work has been done by the Rinslip Manor Cottage Society, with a limited dividend of 5 per cent. The rents vary from 6s. to 15s. a week, and are let under a profit-sharing scheme; but persons may pay from £20 to £100 down and an annual payment equal to rental value and eventually become the owners; while for a small extra premium, for life insurance, in case of the purchaser dying, the house and land passes to his heirs free of mortgage.

This particular scheme has been mentioned to show, as far as possible, what can be done and is being done under the Act. Each of the 160 schemes previously mentioned vary in regard to area, location affected, &c.; some deal with the cities themselves, others with boroughs, and so on. Many schemes for replanning existing cities are also being considered which have not been brought under public notice.

That this town-planning movement has been accepted as a necessity for the health and prosperity of all communities, and consequently of nations, is illustrated again in the United States of America, where over 100 cities have had prepared town-planning reports, among this number may be mentioned Boston, Buffalo, Chicago, Denver, Detroit, Erie, Grand Rapids, New York City, Philadelphia, San Francisco, Washington D.C., Winnipeg.

That the State Governments are interested and working for the education of the people in this matter may be gathered from the publications of the Homestead Commission, Massachusetts, among which is a bulletin entitled, "Information and Suggestions for City and Town Planning Boards," and concluding with the following matter on the final page—

CITY PLANNING

MEANS—

Conservation of human energy and preservation of life, particularly child life.	NOT merely superficial beautification.
Economy, necessity, scientific reality.	NOT extravagance, dreams, fads.
Conformity to definite plan of orderly development, into which improvement will fit as it is needed.	NOT immediate execution of the whole plan.
Saving in cost of public improvements by business methods for city business.	NOT the surrender of the city to artists with vague schemes for city adornment.
Correlation of the cities' activities.	NOT wholesale alterations at great expense, with no assured financial returns.
Encouragement of commerce and facilitation of business.	NOT the interruption of business and commerce.
Preservation of historic buildings with their traditions.	NOT the destruction of the old land-marks and city individuality.
The development of an American city worthy of civic pride.	NOT imitation of London, Vienna, and Paris.
The rule of common foresight and prudence.	NOT the rule of chance with ruinous expense and debt.
Happiness, convenience, and health for all citizens.	NOT merely expensive boulevards and parks available only to the rich.

TREATMENT OF SLUM AREAS.

In the opening paragraphs of a pamphlet, published by the National Housing Association, New York, and written by its Secretary, Mr. Lawrence Veiller, he says:—

"The slum, the mother of disease, is now doomed. Its end is in sight. From ocean to ocean, throughout the land, there is a newly-awakened consciousness of our past folly and a slowly-dawning perception of our inherent right to decent conditions of living.

We have paid dear for our slums, and have given hostages to fortune, leaving a heavy debt for posterity to liquidate. No one has even attempted to estimate the cost to the nation of our bad housing conditions, because it is an impossible task.

Who can say of the vast army of the unemployed how large a portion of the industrially inefficient are so because of lowered physical vitality caused by disadvantageous living conditions? To what extent is the forbidding atmosphere of so many homes an element in the problem of inebriety? Of the burdens which the State is called upon to bear in the support of alms-houses for the dependent, hospitals for the sick, asylums for the insane, prisons and reformatories for the criminal, what portion can fairly be attributed to early adverse environment?"

Such thoughts have entered the minds of others in all parts of the world, and have been probably responsible for the introduction and passing of housing acts in order to combat the evil.

Untold wealth has been expended in the older cities to bring about healthy and sanitary conditions for the working people, is still being spent, and there is every probability that money will be forthcoming in all cities, until, as time rolls on, the existence of slums will be a thing of the past.

The treatment of slum areas varies, in different cities, according to the requirements of the people living within them. In most cities, many of the slums are inhabited by people who have to be near the locality where it is possible for them to obtain intermittent employment, and it is necessary for them to be continually about in order to obtain this casual work. They cannot afford to pay high rents: riding in trams to and from work is out of the question: so they inhabit congested areas near to where they can get this employment. Such conditions generally prevail near dock-yards, shipping centres, &c.: so that when the slums are removed provision has to be made for their accommodation in tenements which have to be built on the same site.

In all the old cities of Great Britain slums are to be found within the walls which were built for the protection of the citizens in the feudal days, caused by the necessity of housing the ever-increasing population within the walls for their safety. These are gradually being removed. The process is slow and costly; there is always the difficulty of deciding what percentage of the population must be re-housed in the same locality; and when the remaining portion has been persuaded to move voluntarily to healthy homes in outlying districts, the question of rapid and cheap trams, trains, or other means of communication to the centres of industry has to be dealt with.

Slums are caused in all large and growing cities through the dwellings of the working classes falling behind the demand, probably caused by the rise in the value of land and the rise in the value of labour and materials for building, so that the erection of such properties became unprofitable to the builder. Houses of this class are also demolished and the sites utilized for the erection of factories, warehouses, or other large commercial buildings, where the rise in land values enables such propositions to become more advantageous financially.

The London County Council, through the Housing Act of 1890, as amended and amplified by the Acts of 1900, 1903, and 1909, have carried out some magnificent work. Under Part I. of the Act, which deals with reconstruction, ten of the schemes have displaced 19,336 persons and provided accommodation for 15,901, the area treated amounts to over 52 acres, and the net cost was £1,083,362. The housing value of the sites for re-housing was £131,021, and the cost of buildings erected £746,290.

Under Part II. of the Act, which deals with the erection of common lodging houses and the housing operations in connexion with improvements, sixteen schemes have been undertaken, displacing 5,633 persons and providing accommodation for 6,066; the area covers 11 acres, and the net cost amounts to £211,852. The housing value of the sites is £59,221, and the cost of buildings erected £301,209.

Under Part III. of the Act, which deals with constructional development of estates for housing purposes, fifteen schemes have been carried out, providing accommodation for 46,573 persons, the area covered is 296 acres, the cost of lands and roads £387,579, and of buildings £1,506,808.

One of the largest schemes undertaken by the Council under Part I. is that known as Boundary-street area. The neighbourhood was developed about the end of the eighteenth century, and many of the old streets were named after Nelson's admirals and captains. The death rate was 40 in 1,000, as compared with 18.4 in London.

Plate I shows the area before the buildings were removed.



The re-development consists of laying out streets radiating from a central open space, as shown on Plate 2.

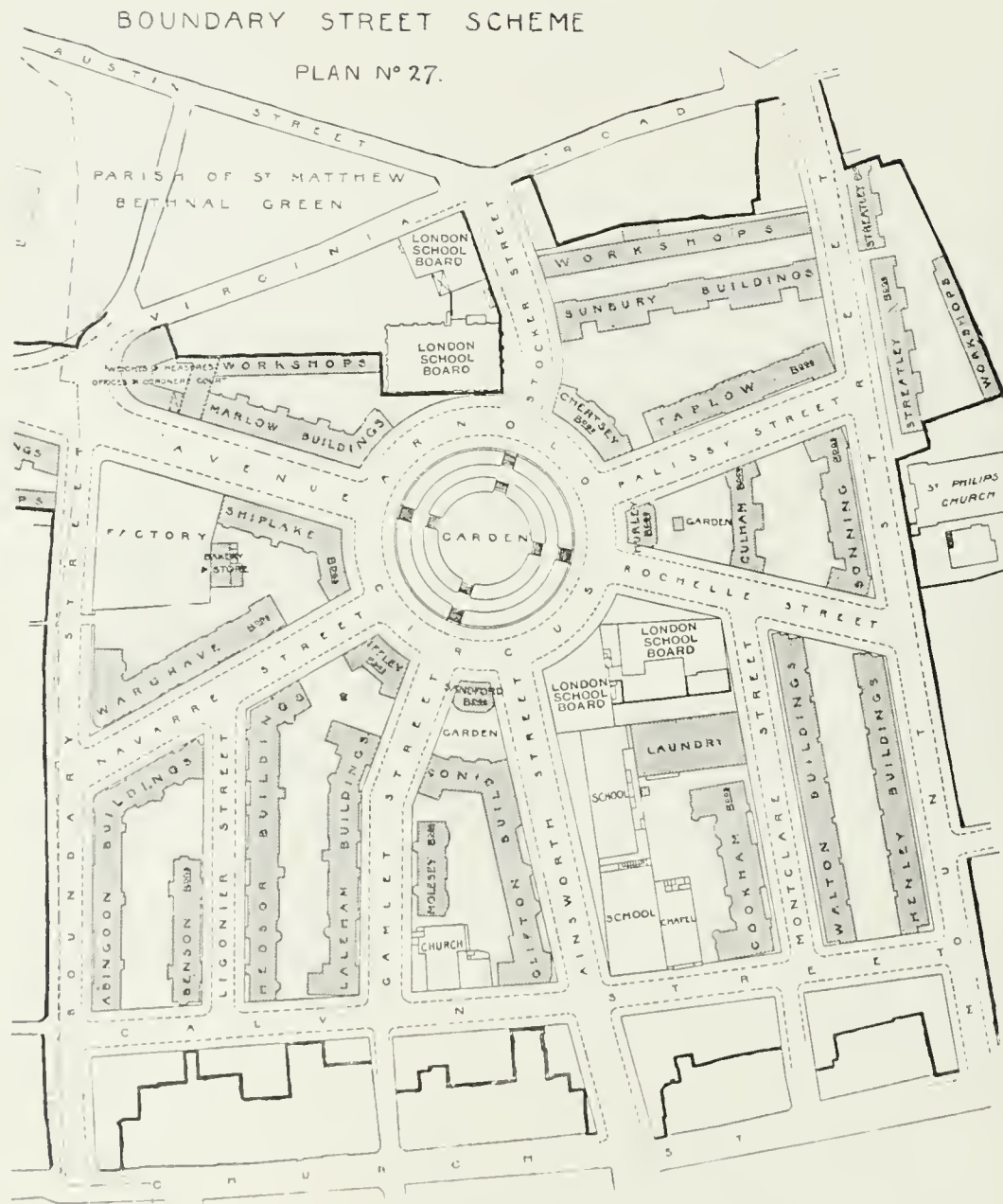


PLATE 2.

The number of persons displaced was 5,719, and accommodation had to be provided for 4,700 persons; in addition, 18 shops and 77 workshops were provided; living rooms average 152 square feet; bed-rooms, 103 square feet. Every habitable room has at least a 45-degree angle of light.

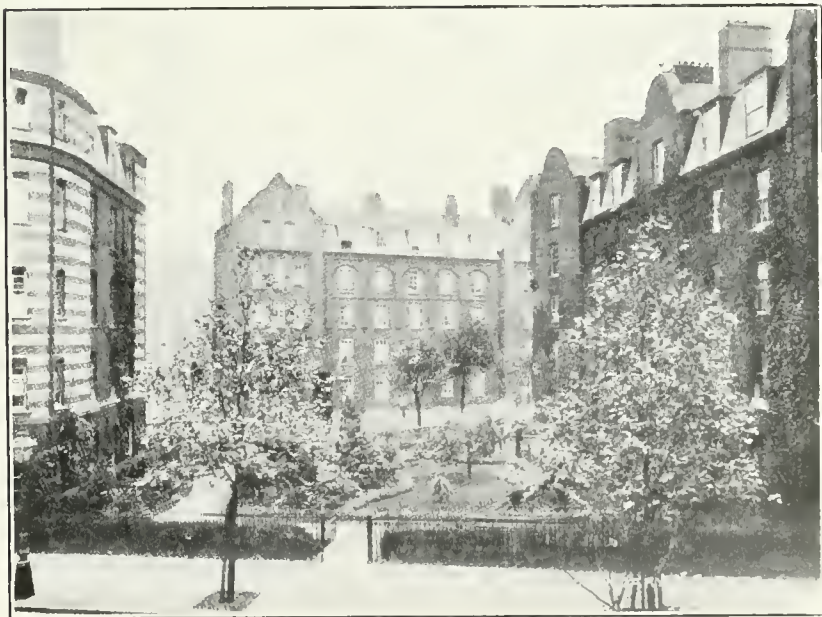
Plate 3 shows the finished buildings.



Boundary-street Estate.—General View from Chertsey Buildings.



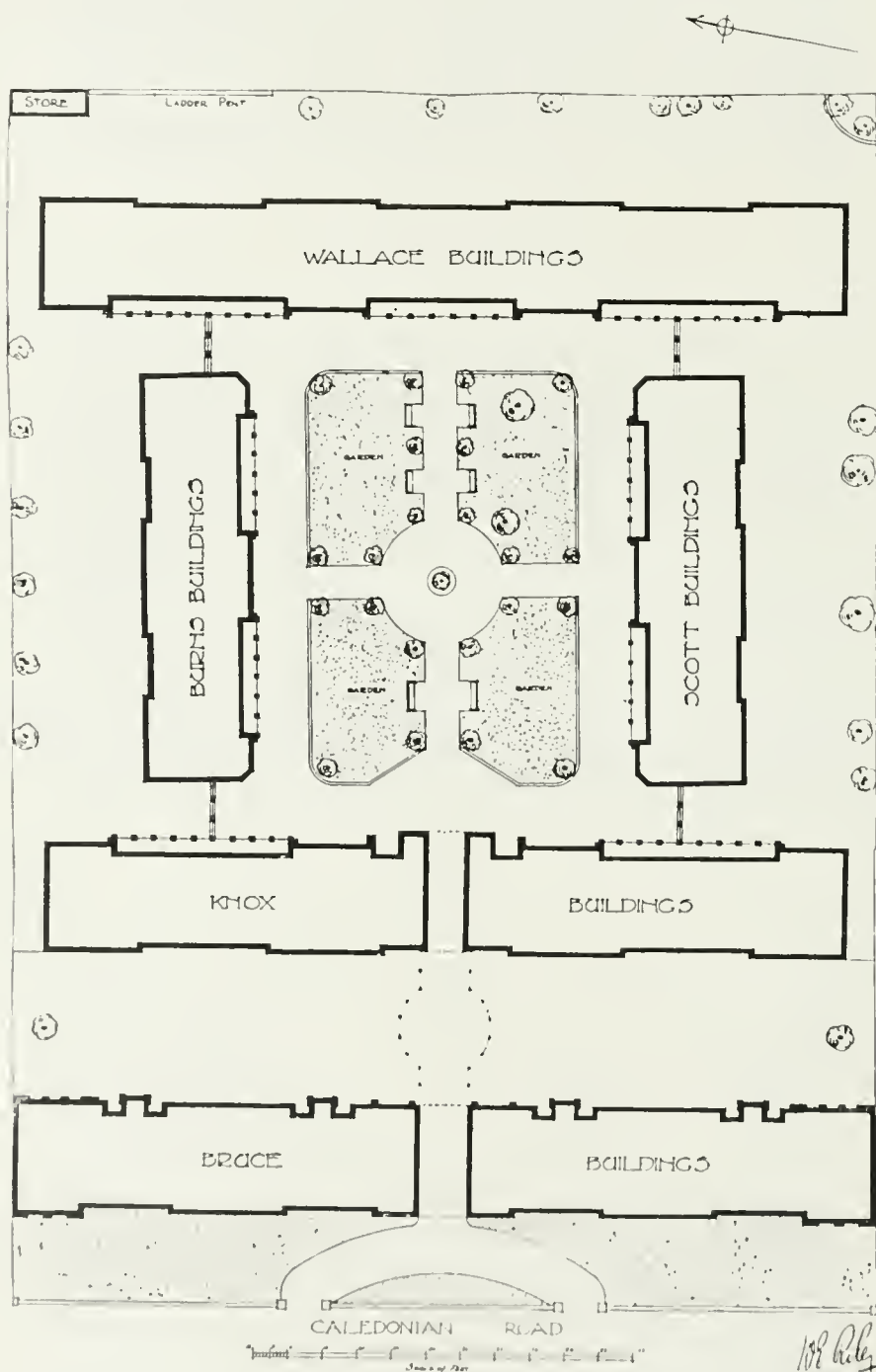
Boundary-street Estate.—General View from Iffley Buildings.



Garden between Hurley Buildings and Culham Buildings.

The latest scheme being undertaken by the Council under this part of the Act is that dealing with Tabard-place, Grotto-place, and Crosley-row areas, Southwark and Bermondsey. It is the largest clearance ever embarked upon, and has a total area of 17 acres. The death rate from 1904-8 was 36·8, and the success of the Boundary-street scheme caused the Council to take action in this area.

A scheme carried out under Part III. of the Act is the Caledonian Estate, Holloway. Five blocks, accommodating 1,384 persons, and known respectively as Bruce Buildings, Burn's Buildings, Knox Buildings, Scott Buildings, and Wallace



Caledonian Estate.

PLATE 4.

Buildings, were completed in 1906. Four blocks arranged around a central garden are of the balcony type, but the front block has enclosed staircases. Plates 4 and 5 illustrate the general plan and the appearance of the group.

In Edinburgh the congestion within the old city boundary was very severe, but this condition is being remedied by the clearance of slum areas and the erection of habitable buildings for rehousing the inhabitants.



Caledonian Estate.—Bruce Buildings.



Caledonian Estate.—Wallace Buildings and Scott Buildings.

PLATE 5.

Plate 7 will show the severity of this congestion prior to treatment. It is a plan of the area where the Tron-square scheme was carried out. Each alley or close, as it is known in Edinburgh, runs from High-street to Cowgate; they are only a few feet in

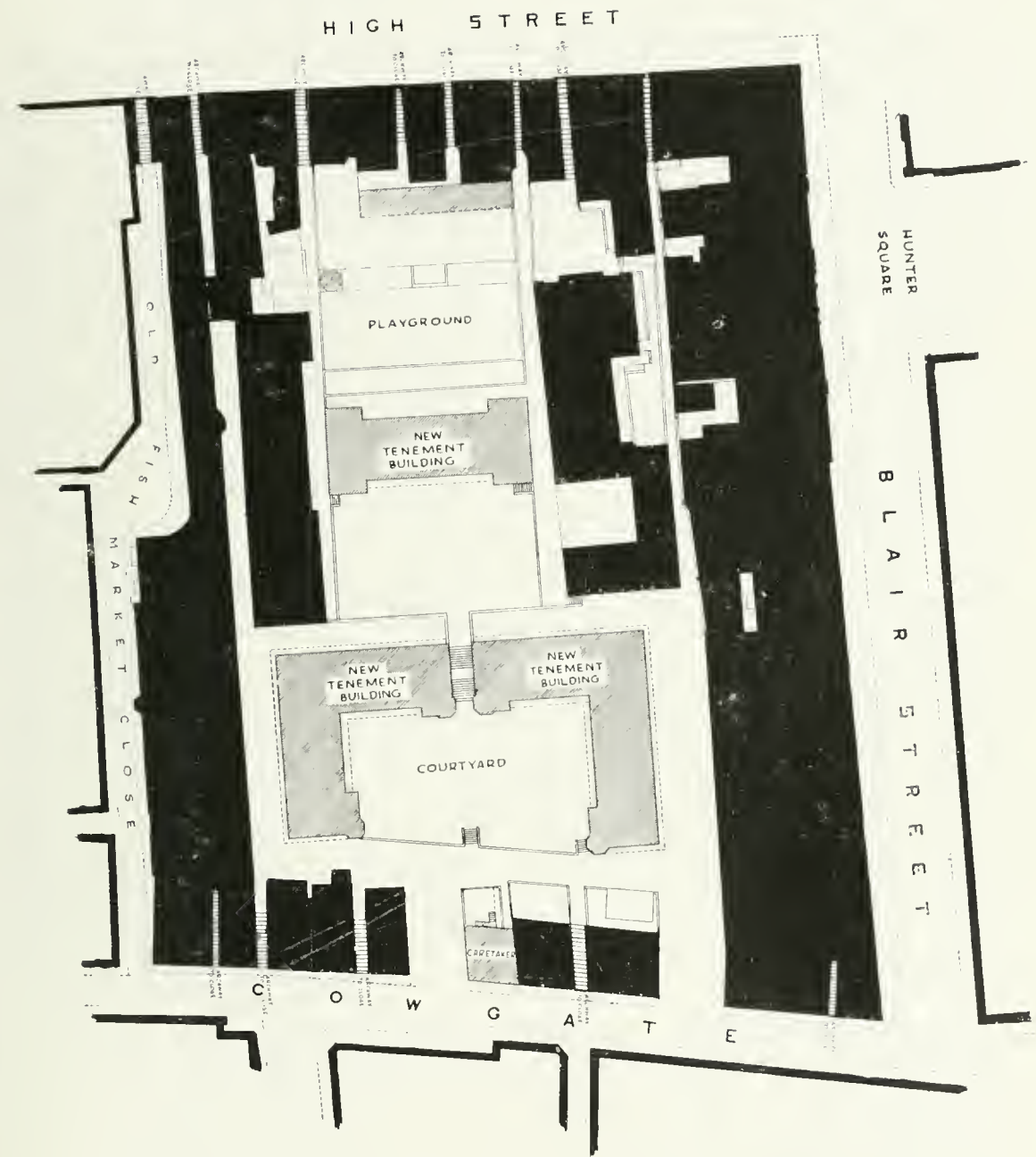
width, and are entered, by narrow archways, from the main streets. Each building contains two or more stories, and the whole conglomeration was evil-smelling and lacking in light and means of ventilation. Altogether the condition was deplorable.



The central portion of this area was cleared and wide entrances made from Cowgate, and within the square so cleared was erected the tenement buildings and playground shown on Plate 8.

Other areas have been treated in a similar manner, and the work of clearing existing shims still proceeds as quickly as the city authorities can arrange.

Experience has shown that there is often much trouble in preventing slum dwellers from moving from one slum to another as they are being cleared away. It has been found that families whose forefathers have lived generation after generation within the slums become so degenerate that their natural inclination is to live in them, and they will only go to the new and healthy tenements when there is nothing else available.

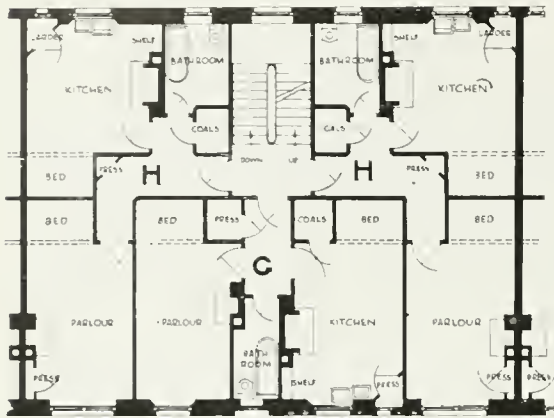


Tron-square Scheme, Edinburgh.

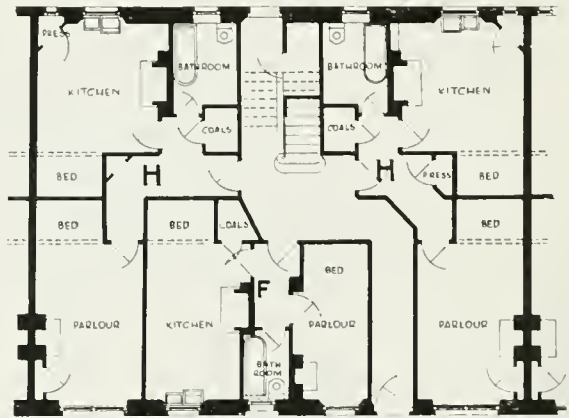
PLATE S.

Plate 9 gives the plans of two and three roomed tenements as erected in Edinburgh. Each tenement is provided with separate bath and toilet equipment, and a common stairway communicates to two and three tenements on each floor, according to the accommodation provided and following more or less the procedure in London.

City of Edinburgh.



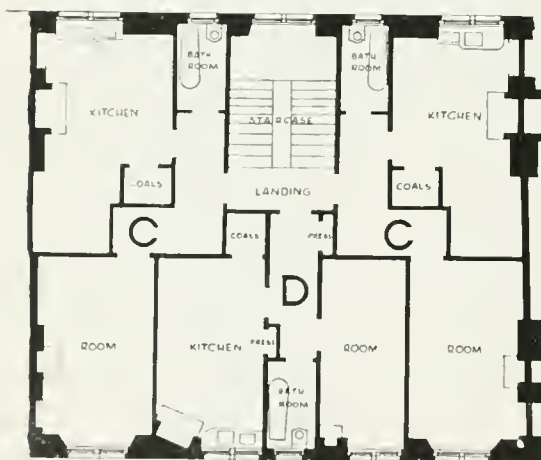
FIRST FLOOR PLAN



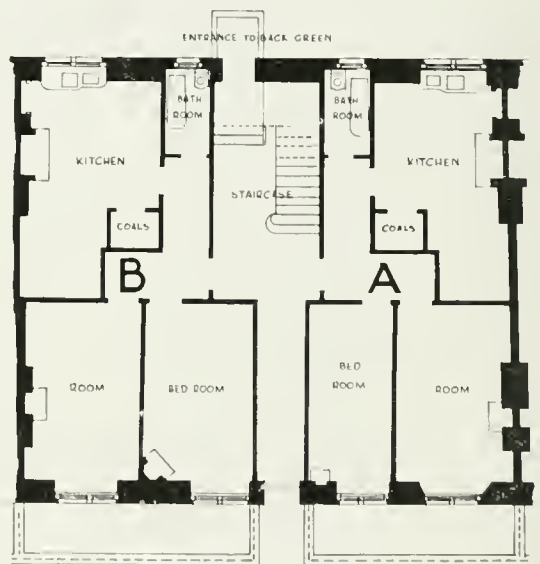
GROUND FLOOR PLAN



Tenement, Piersfield-grove—Nine Houses per Tenement.



FIRST FLOOR PLAN



GROUND FLOOR PLAN



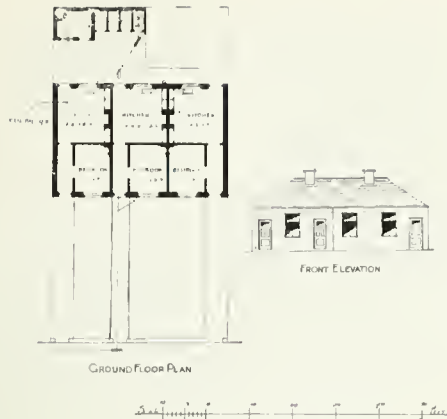
Tenement, Piersfield-grove—Eight Houses per Tenement.

PLATE 9.

In Aberdeen the housing has been carried out in continuous formation similar to terraces which were constructed some years ago in Victoria, but by comparing the plans in the following plates it will be found that in the types erected in Charles-place, King-street, and Union-road no bath is provided, and the toilet accommodation is common to each group of tenements on each floor, which is a decidedly insanitary and a bad arrangement.

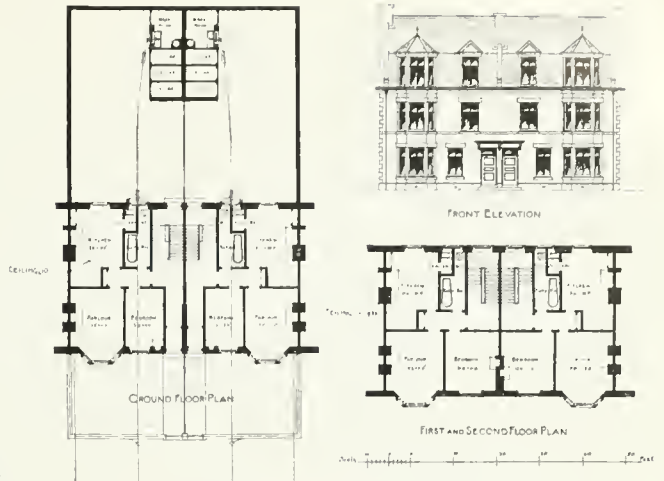
Forest-avenue Buildings, erected in 1906, provide separate bath and toilet accommodation, but Victoria-road, built in 1912, while providing separate baths, only has toilet accommodation common to two tenements, and in the whole of the foregoing cases the only entrance to the yards and coal cellars is through the buildings themselves.

The arrangement of Belgrave-terrace and the proposed workmen's dwellings with side passages to the yards appears to be the best plan carried out, although the whole of the schemes are far behind what is being carried out in most of the principal cities of Great Britain.



House, Charles-place, Aberdeen

(consisting of three self-contained two-roomed dwellings, with no scullery or bath, and one w.c. for all. Built on back lands).
Rent, £7 10s. each. Total, £22 10s. (excluding occupiers' rates). Erected 1913. Cost, £380 (excluding street). Area, 355 sq. yds. No feu-duty. Including share of cost of ordinary street, price would be £395. Add allowance for usual feu-duty, £5. Such dwellings could ordinarily not be let at less than £10 to £11 each (excluding occupiers' rates).

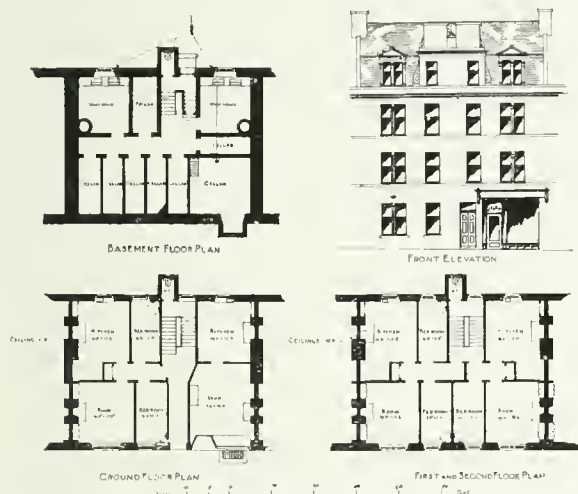


Double Block, Forest-avenue, Aberdeen

(containing six dwellings of three rooms each, with bathroom, scullery, and w.c.).

Rents, £16 10s. to £18. Total, £103 (excluding occupiers' rates). Erected 1906. Cost, £1,575 (including street). Area of feu, 595 sq. yds. Feu-duty, £14.

Would cost, at present prices (1914), £1,900.

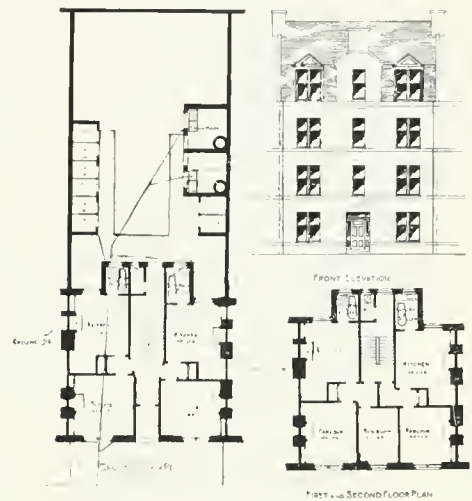


House, King-street, Aberdeen

(containing one shop and seven dwellings of three and four rooms each, with no bath or scullery).

Rent, £11 10s. to £16 for dwellings, and £18 for shop. Total, £117 10s. (excluding occupiers' rates). Erected 1895. Cost, £1,800 (including street). Area, 469 sq. yds. Feu-duty, £10 17s. 6d.

Would cost at present prices (1914) £2,000.

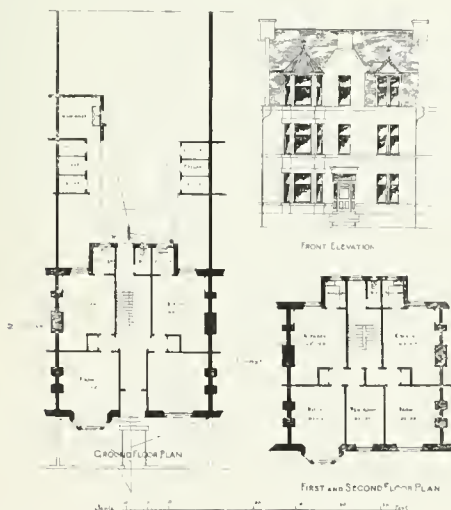


House, Victoria-road, Aberdeen

containing eight tenement dwellings of two and three rooms each, with combined scullery and bathroom for each house, and with w.c. off staircase).

Rents, from £16 17s. 6d. to £14 10s. Total rent, £98 2s. 6d. (exclusive occupiers' rates). Erected 1912. Cost, £1,300 (inclusive street). Area of feu, 380 sq. yds. Feu-duty, £7 8s.

Would cost, at present prices (1914), £1,400.

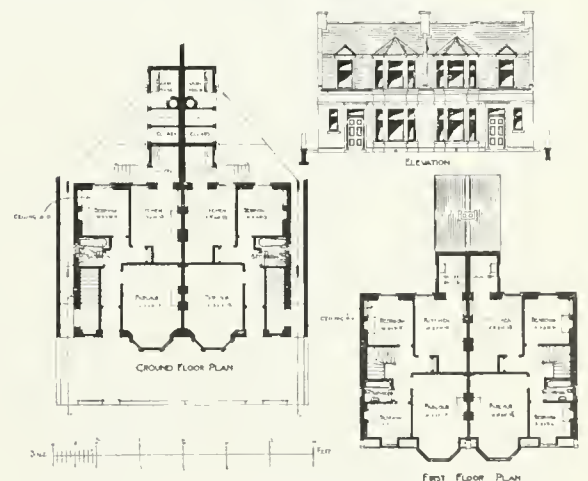


House, Union-grove, Aberdeen

(containing six tenement dwellings of two and three rooms each, with scullery, but no bath. W.C. off staircase).

Rents, from £11 10s. to £15. Total, £76 5s. (excluding occupiers' rates). Erected 1907. Cost, £1,100 (including street). Area, 424 sq. yds. Feu-duty, £14.

Would cost, at present prices (1914), £1,300.

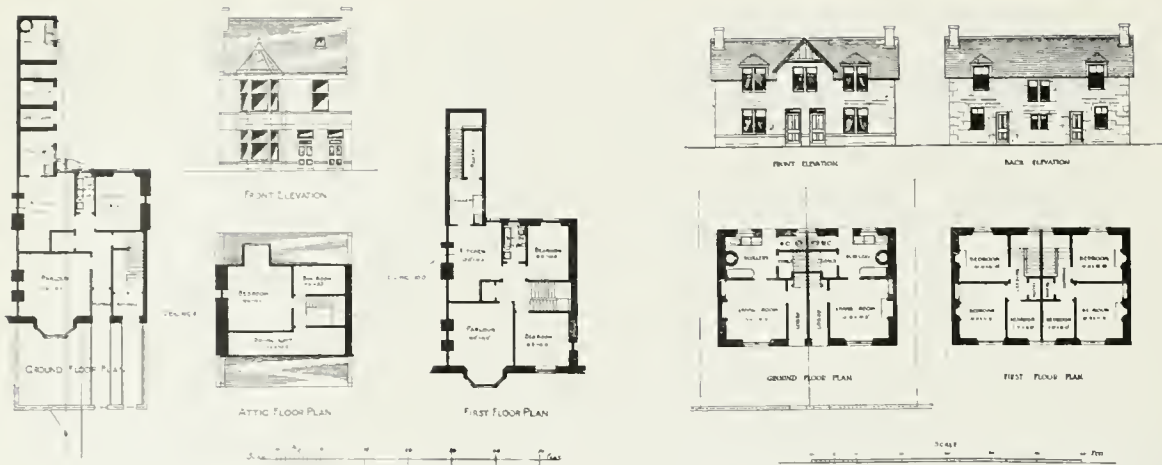


Block, Belgrave-terrace, Aberdeen

(containing four self-contained houses of three and four rooms each, with scullery, bathroom, and w.c.).

Rents, £21 1s. and £22. Total, £86 2s. (excluding occupiers' rates). Erected 1905. Cost, £1,400 (including street). Area of feu, 902 sq. yds. Feu-duty, £11 4s.

Would cost, at present prices (1914), £1,600.



House, Devonshire-road, Aberdeen

(containing two self-contained dwellings of three and five rooms, with scullery, bathroom, and w.c. for each).

Rents, £21 and £26. Total, £47 (excluding occupiers' rates). Erected 1902. Cost, £720 (including street). Area of ten, 464 sq. yds. Fen-duty, £4 7s.

Would cost, at present prices (1914), £850.

Sketch Plan of Proposed Workmen's Dwellings.

Suggested plan of workmen's double cottage (pointed granite rubble, with hewn stone corners), containing two dwellings of four rooms each, with bath, w.c., and combined scullery and wash-house for each house. Estimated cost (including street), £485. Suggested rents (including occupiers' rates) £18 each.

PLATE 10.

The City of Liverpool has been doing good work in regard to its extensive slum areas, and the plans of Bevington-street area and St. Anne-street area before demolition and as rebuilt, together with the plates illustrating the slums and new tenements, the



A Tunnel-entrance Type of Court.

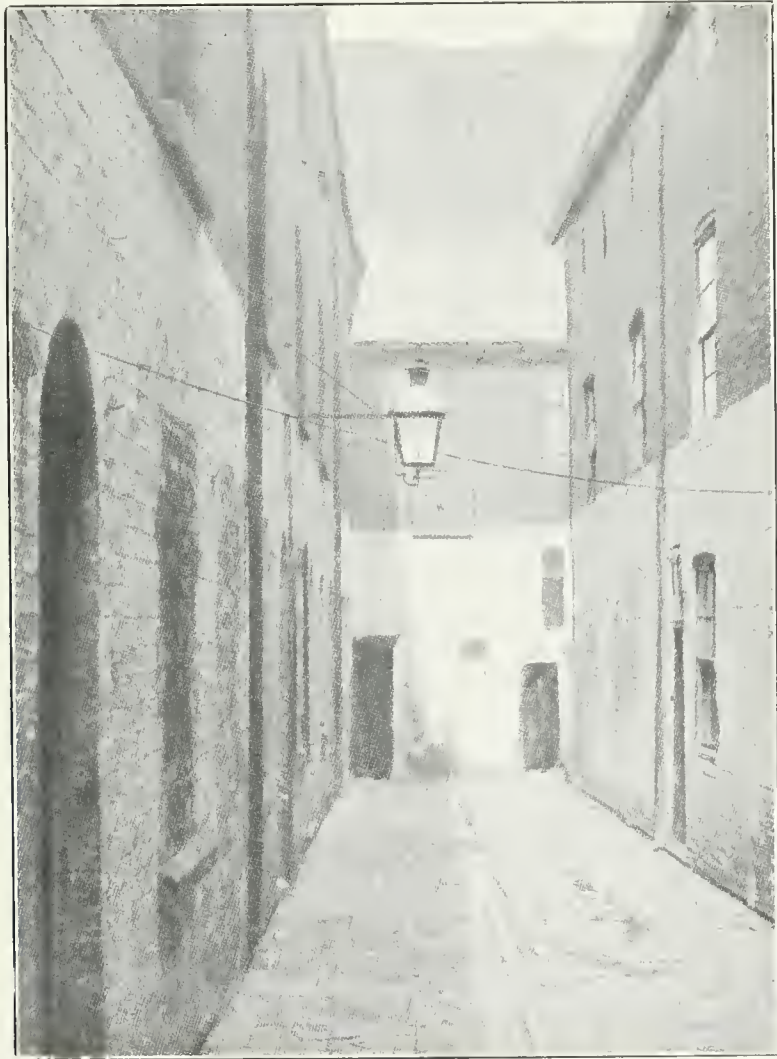
PLATE 11. GROUP 1.

playgrounds, &c., show what can be done and is being done to remove insanitary property and to provide healthy homes for the less fortunate inhabitants of the city. These cases are only taken to illustrate the work of the Council, and form only a small part

of a general scheme being carried out by the Housing Committee of the City Council. Over £1,000,000 has been spent in the removal of what was considered the worst slum areas in England, fever-stricken, immoral, and crime-infested haunts with a death-rate of 60 to the 1,000, and infectious diseases always existing.

Over 2,000 dwellings were erected from 1898 to 1912, while the death rate was reduced to 27 per 1,000.

Canada and the United States of America are not behind in the national movements for the clearance of slum areas and construction of habitable sanitary dwellings. Both countries have many strong and enthusiastic associations; almost every city is working hard for the solution of this enormous problem. Millions of pounds sterling are being spent annually in carrying out the various schemes with the knowledge that, while the work and expense is absolutely necessary for the national good, it could have been avoided if town-planning legislation had been provided for during the growth and development of the cities.



Another Type of Court.
(Note high buildings at end.)

PLATE II.—GROUP I.

New York City organized a tenement-house department in 1901, and the statistics show that during the first ten years 23,335 separate tenement houses were erected, costing over £150,000,000, containing 312,101 apartments, and housing 1,500,000 people.

The department has a staff of nearly 800, and spends £160,000 annually on housing.

The new tenement law under which this work has been carried out is spoken of as being superior to similar laws in Europe, and it protects the health and lives of the dwellers by stipulating that every tenement shall have a separate kitchen, and separate toilet conveniences. The city authorities have in addition provided in 80 per cent. of the tenements separate bath tubs for each family.

Many of the tenement buildings have roof gardens and roof playgrounds.

The cost of treating the slum areas in other American cities is, naturally, not nearly so great as the colossal proportions of New York city necessitate, but each one is working earnestly and continuously for the elimination of the slum, for the proper housing of the people, and for legislation that will prevent their creation in the future.

It is easy to understand why congestion exists in London, New York, and all the large cities of the world where in the one case the errors or necessities of building construction and housing have been allowed to remain for centuries, and in the other during the rapid expansion and development of the last century the evil has been overlooked, avoided, or pushed aside for questions appearing to be of more vital importance to those who were responsible for the welfare of the city. That the authorities of our more enlightened times realize the benefits to be derived from proper housing conditions has been demonstrated, and in most cases the erection of tenement buildings has been the only and the proper solution of the difficulty: but in Australia we have unlimited areas of forest, mountain, and plain, well watered and fertile: we have unbuilt acres in thousands around our cities. There is not a State in the Commonwealth or a town in any of the States where land conditions are able to prevent, without



Another Type of Court.

PLATE II. GROUP I.

crowding, plenty of space being given to every one of its citizens. We have room for every one and more to spare. Let us, therefore, avoid the tenement building and fight against its introduction. Granting that tenements have brought health, happiness, and good housing conditions to millions of people in distant countries, tenement life is not home as we know it. Every habitation in this fair land of Australia should have sufficient space for light and air, for lawns and gardens, and for conditions generally that will provide the real home, giving health to the body, pleasure to the senses, and make certain of the increased mental and physical development of our future generations.



Bevington-street Area.

View of Part of Eldon-street on the Old Area, Showing Entrances to Nos. 5, 7, and 9 Courts.



Bevington-street Area.

View of Tenement Flats.—Looking down New Private Roadways from Limekiln-lane.



Combermere-street Dwellings.

(These Buildings have a Flat Roof used as a Children's Playground.)

(1909.)



Combermere-street Showing Roof Playground.

PLATE II. — GROUP II.



Bevington-street Area.

View of Playground for Girls.—Looking from Limekiln-lane.



Bevington-street Area.

View of Playground for Boys.—Looking from Titchfield-street and showing private 15-ft. Roadway.

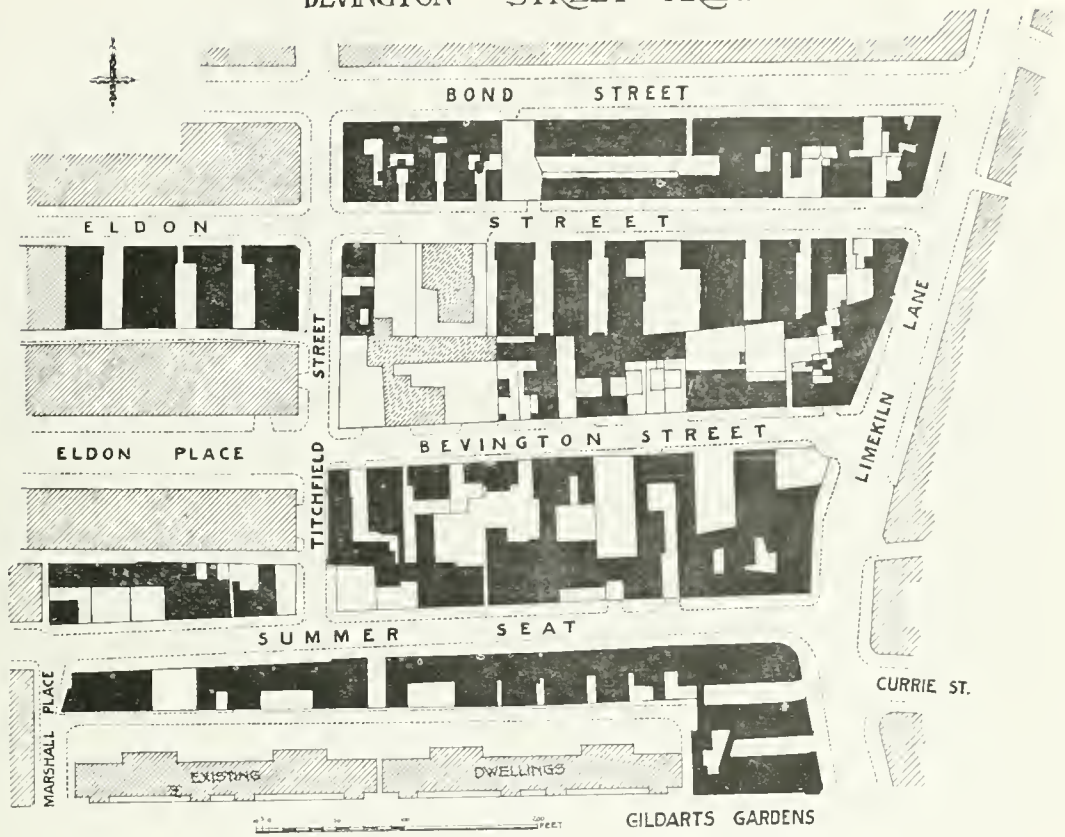


Bevington-street Area.
View of Tenements facing Limekiln-lane.



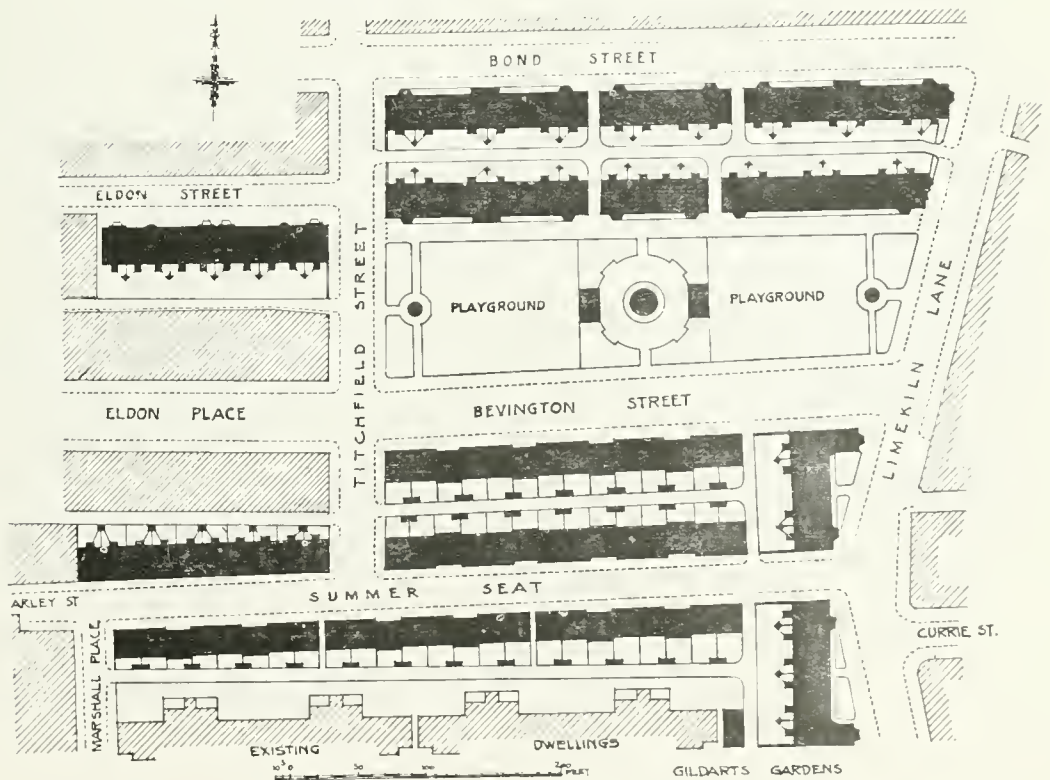
A View of Self-contained Cottages in Summer Seat.
(Looking from Tithefield-street.)

CITY OF LIVERPOOL ·
BEVINGTON STREET AREA ·

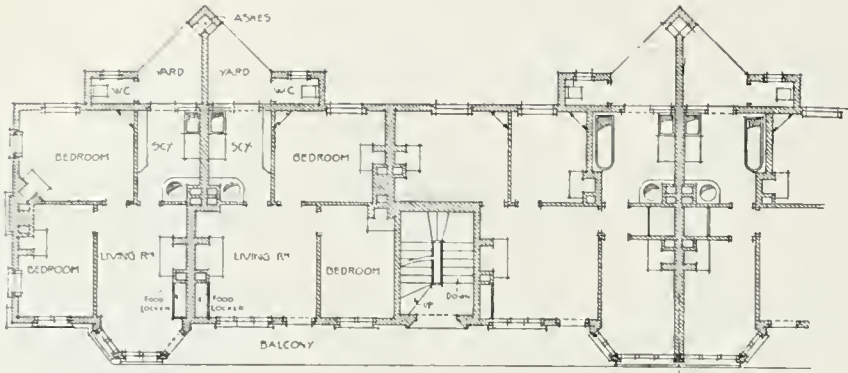


PLAN SHEWING AREA BEFORE DEMOLITION.

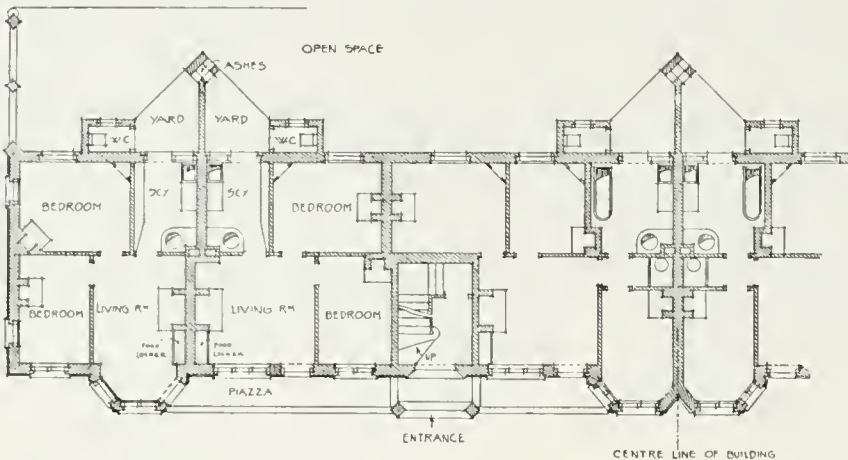
CITY OF LIVERPOOL ·
BEVINGTON STREET AREA ·



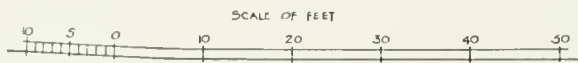
PLAN SHEWING AREA AS REBUILT, 1912.



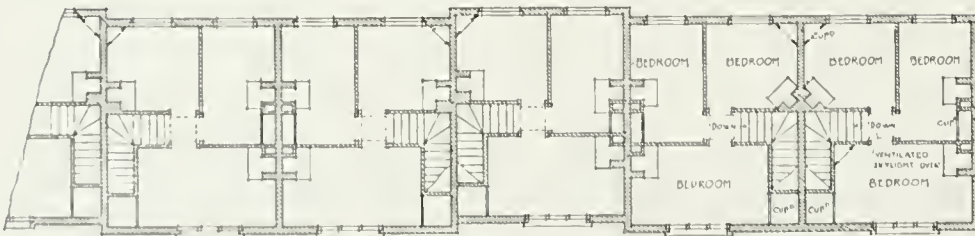
· HALF OF FIRST FLOOR PLAN · CENTRE LINE OF BUILDING



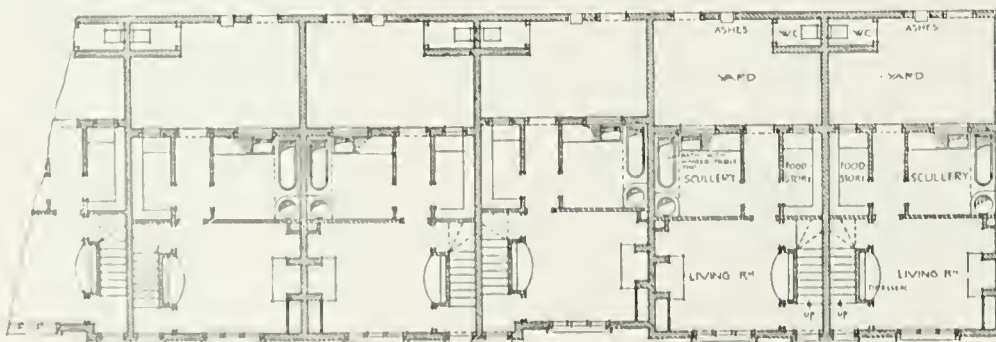
· HALF OF GROUND FLOOR PLAN



PLAN OF SELF-CONTAINED COTTAGES ·



· PART OF FIRST FLOOR PLAN ·



· PART OF GROUND FLOOR PLAN ·



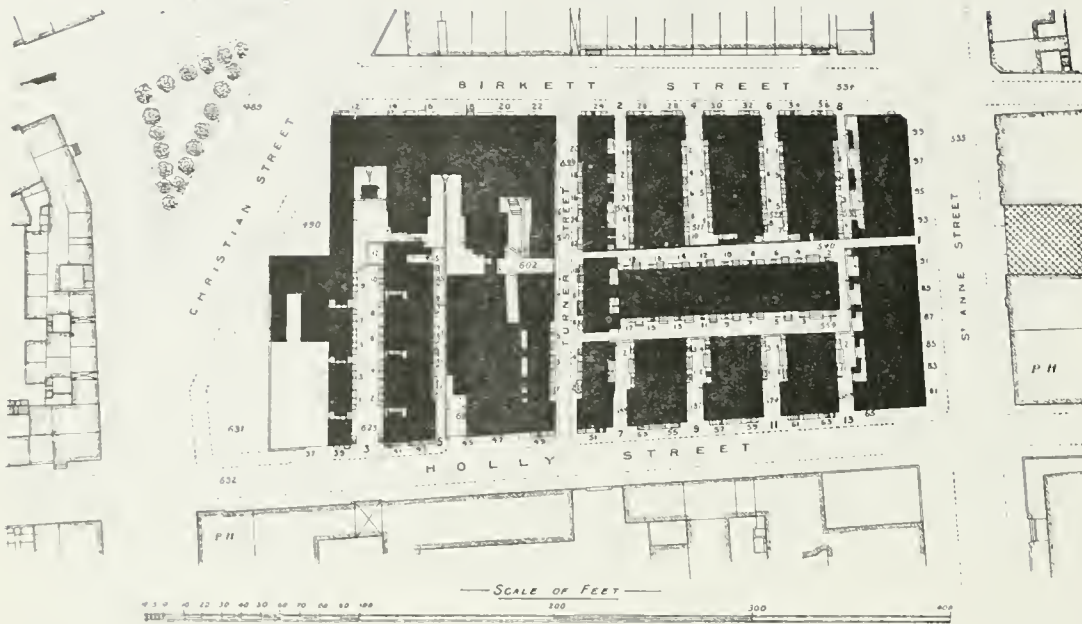


St. Anne-street Area Dwellings. Block A—Christian-street Front.
(To be opened 1914.)

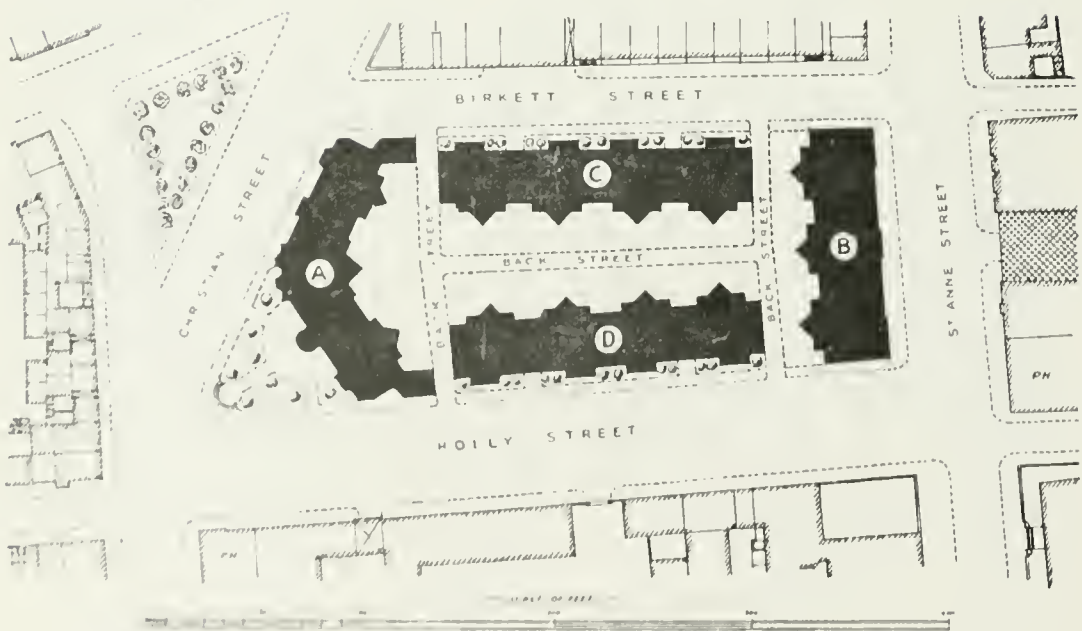


St. Anne-street Area Dwellings.
Block D—Looking down Holly-street from St. Anne-street.
(To be opened 1914.)

CITY OF LIVERPOOL
ST. ANNE STREET AREA
 PLAN SHEWING AREA BEFORE DEMOLITION



CITY OF LIVERPOOL
ST. ANNE STREET AREA
 PLAN SHEWING AREA AS REBUILT



MAIN ROADS AND STREETS.

Most cities in all countries are experiencing difficulty in traffic problems through the altered conditions and development in the methods of transportation. The introduction of the automobile in all its forms, electric cars and trains, the increasing population of progressive cities and towns, necessitating rapid transit to outlying districts, and the growth of the percentage in cities, as compared with rural population, have caused the street congestion which now calls for more space and a different arrangement in roads and streets to that which was necessary before these conditions arrived.

Town planning provides for the re-arrangement and improvement in existing roads and streets wrongly planned, either through adverse circumstances or lack of proper judgment. But, at the same time, it makes certain that all future work of this nature is wisely and economically designed, with ample provision, in the outskirts of the city, to meet the probable requirements of its expansion and where the greater part of the growth of the city must occur.

The majority of older cities have reached a state of development in which the permanence of its street alignment is unalterable except at enormous cost, but much has been done in the construction of new streets and the widening of existing ones, both in Great Britain and America since 1889. The London County Council has carried out street improvements estimated to cost £11,000,000, exclusive of bridges.

The removal of the old buildings, evil-looking courts and alleys, with the squalid poverty, which reigned for many years in the vicinity of the Church of St. Mary le Strand, enabled the crescent-shaped Aldwych and the island site between that street and the Strand to be carried out, resulting in the preservation of the old, interesting, and picturesque church, which can now be seen in all views of the Strand, in the relief of traffic congestion, and has effected a change so great as to be hardly conceivable.



Aldwych from the Strand.

PLATE 12.

The method of widening streets by encroaching on parks is illustrated at Marble Arch, which is perhaps the principal entrance into Hyde Park, and one of the land-marks of London. It is situated at the western end of Oxford-street and close to one end of Park-lane, the most fashionable street in the city.

Congestion of traffic became so great at this point that it was found necessary to throw the entrance into the park farther back, as shown, and Marble Arch now stands on an island for the diversion of traffic, but still serving to remind the citizens of its original function, and forming an architectural accessory to street adornment.



Street Widening at Marble Arch.

PLATE 13.

At Liverpool splendid work has been done by the City Council in meeting the necessities of increased traffic during recent years.

Many radial roads have been widened and constructed, while an outside road skirting the city and intersecting and connecting the various roads approaching the business centre is almost completed.

The following plates illustrate the work which has been carried out :—



Walton Hall Avenue.

A radial road, 72 feet wide and 1 mile long, constructed in 1908. The tree plantation through which the road passes will be preserved as an open space.

PLATE 14.



A portion of Queen's Drive, formerly known as Childwall Priory-road.

Widened in 1910 from 36 to 108 feet. The site of the old road is retained, a new one being constructed on one side with a double row of trees as a central promenade.

PLATE 15.



A well-wooded portion of Queen's Drive, formerly known as Lark Hill-lane.

Widened in 1909 from 30 to 84 feet. The lower courses of the old stone wall were left standing to retain the soil covering the tree roots.

PLATE 16.

In America the replanning of cities is being carried out extensively to meet the increased facilities necessary for traffic, although there are many cities devoting their attention to the creation of civic centres rather than to the more important question of dealing with the proper development of city expansion and roads and streets for communication.



Menlove-avenue, formerly Beech-lane (seen on the left).

Widened in 1910 from 36 to 114 feet. The trees adjoining the road were retained.

PLATE 17.

At Washington, D.C., the replanning of the city or, perhaps it would be more correct to say, the development of the city plan, as laid down by L'Eufaut, a French army engineer, over 100 years ago, dates back some fourteen years. Prior to that date several buildings were erected which mutilated the first design.



Menlove-avenue, formerly Beech-lane (seen on the right).

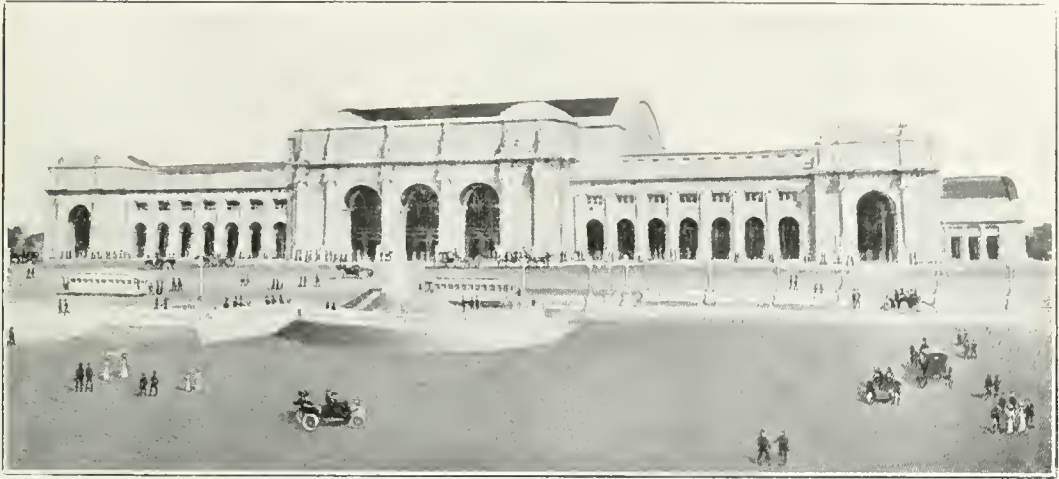
It was widened in 1910 from 36 to 114 feet. The trees adjoining the old road are retained as a feature.

PLATE 18.

However, the recent alterations which have been carried out, together with the work now in hand, will result in Washington being finished almost as originally designed, and accepted as one of the most beautiful and convenient cities of the world.

In order to bring about this achievement the land between Union Station and the buildings of the Capitol was appropriated, and all the houses on the site demolished to form a magnificent open park and plaza at the entrance to the city.

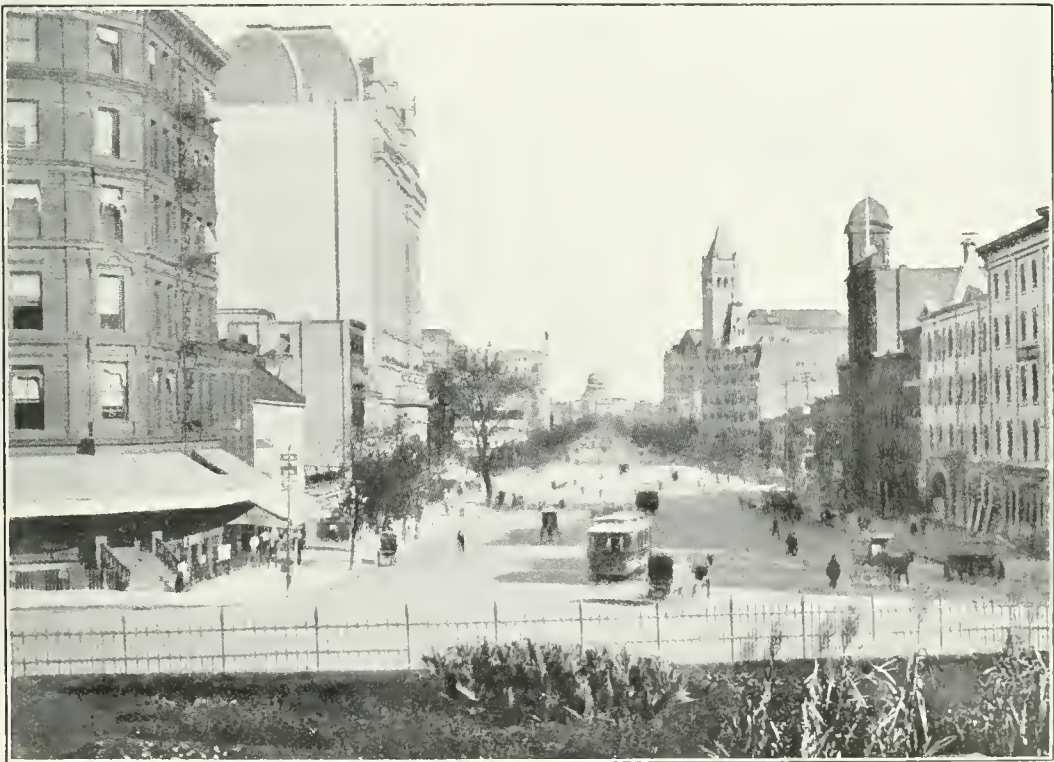
Although this open space was in a transition stage of development during my visit, the breadth of treatment, the silhouette of the capitol in the middle distance just beyond, and the possibilities of the park as a completed whole appealed to me as a fitting and imposing entrance to the city, which belongs to the people of the United States.



Union Station and Plaza, Washington, D.C.

PLATE 19.

The construction of the Mall is proceeding towards completion, the axial line of which runs through the dome of the Capitol, the Washington Monument and the Lincoln Memorial being built on the banks of the Potomac River. A transverse system, whose axis runs through White House, crosses the Mall near Washington Monument, at which point it is proposed to create a sunken garden.



Pennsylvania-avenue, Washington, D.C.

PLATE 20.

It will be seen from the plan that most of the disadvantages resulting from the checker-board type of plan have been neutralized by the provision of radiating streets giving direct communication between important points, and of sufficient widths for the demands of existing and probable future traffic.



Washington, D.C.

1. Union Station.
2. Capitol.
3. Washington Memorial.

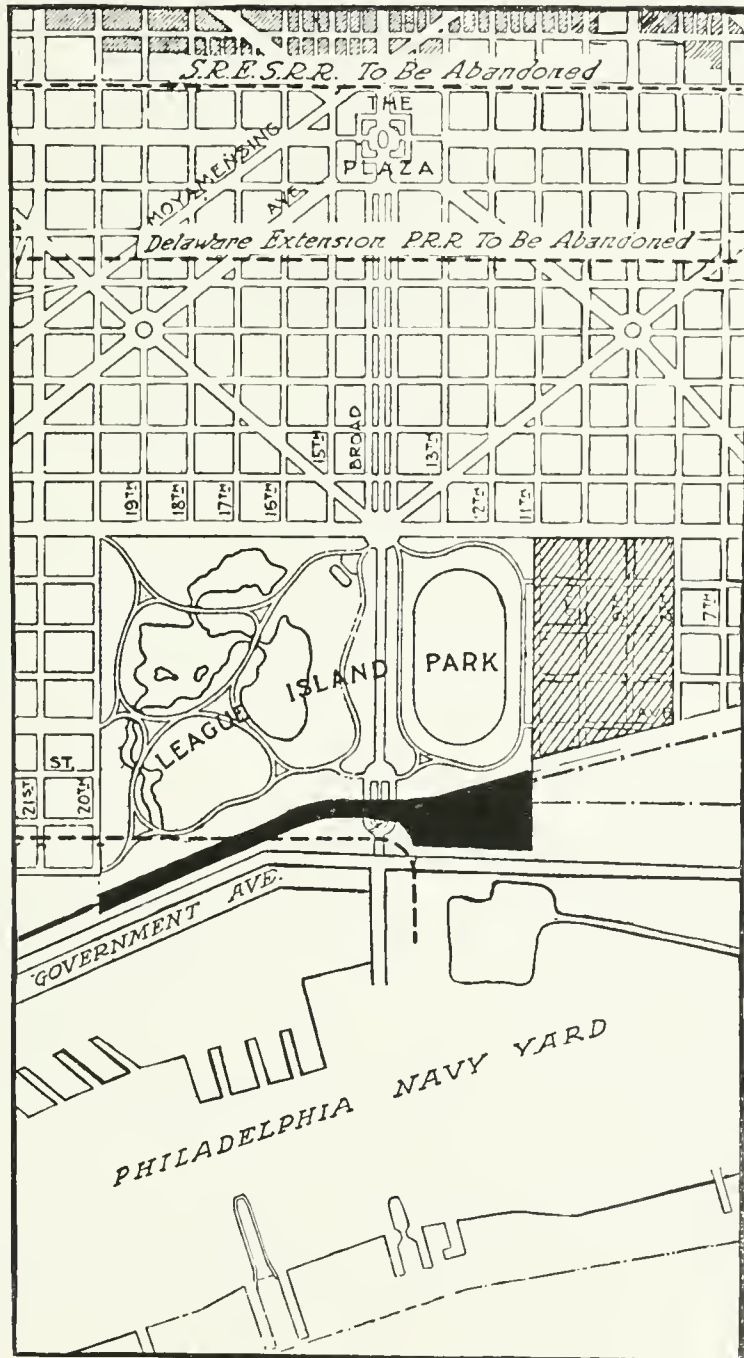
4. Proposed Pantheon.
5. Treasury Dept.
6. War and Navy Dept.

7. White House.
8. Lincoln Memorial.

PLATE 21.

When this work is all finished, which will necessitate the further appropriation of lands and the removal of existing buildings. Washington, with the beauty and grandeur of its architecture and the architectural development likely to occur during the next decade, will be of great value, from an educational point of view, in regard to town planning for all other cities.

Philadelphia is being replanned and vast sums of money spent during the process. The disadvantages of the checker-board or, as it is sometimes called, the gridiron type of plan, has been realized by the city authorities, with the result that a system of diagonal communication streets, cutting through the original block lay-out, is proceeding as shown on the plan.

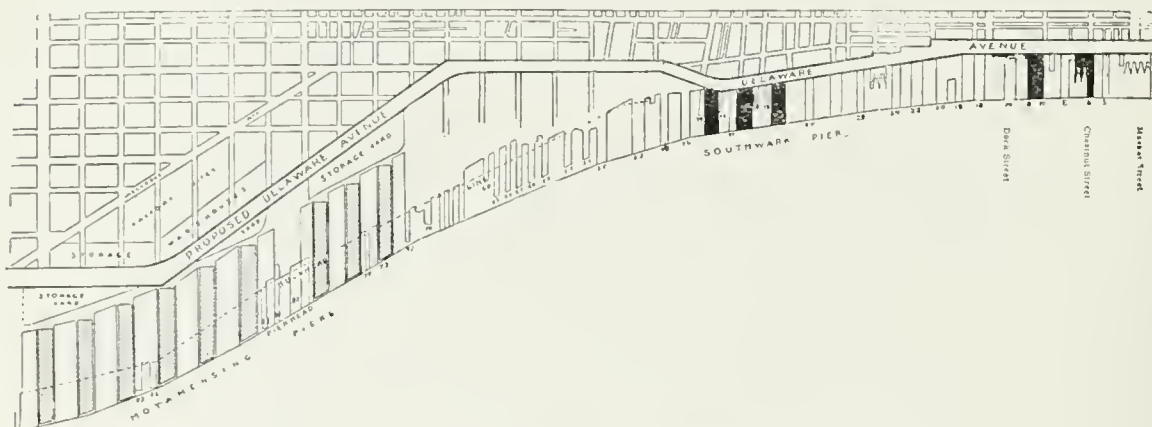


Part Plan of Philadelphia, U.S.A., showing New Diagonal Streets.

PLATE 22.

Traffic congestion along the water front became so great that the city of Philadelphia has cut a great thoroughfare 150 to 200 feet wide. The original width of Delaware-avenue, where the widening has occurred, only averaged 50 feet. The plan shows the extent of the work and the illustration a portion of the demolition and construction being carried out.

The Philadelphia Parkway, which is cut diagonally right through solidly built up blocks in the heart of the city from the City Hall to Fairmount Park, is nearing completion. During 1913 222 buildings were demolished, and there appears to be about as many more to be dealt with. The plan shows the scheme.



Delaware-avenue, Philadelphia.

PLATE 23.

The work which is being carried out at Washington and Philadelphia serves to illustrate what is being done in American cities, varying in accordance to the necessities of each, but showing how widely the town planning movement has spread and that America has awakened to the fact that through scientific town planning and the

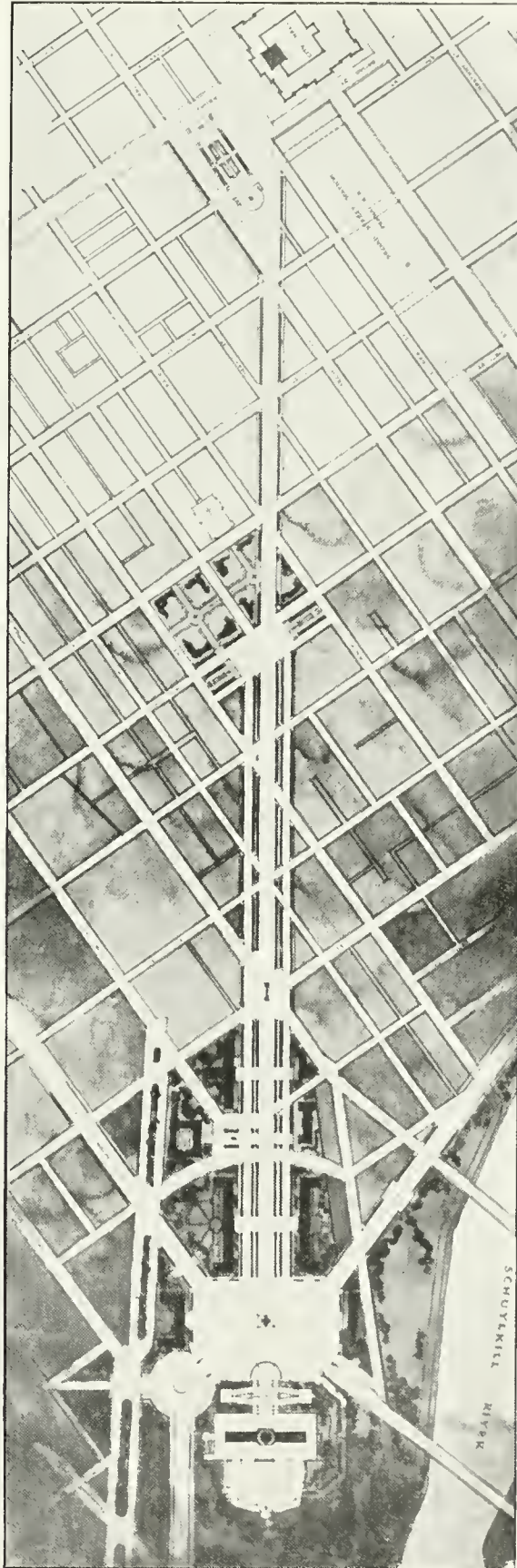


Delaware-avenue, Philadelphia, showing original width and extent of widening.

PLATE 24.

consequent improvement to cities, through the increased facilities for traffic and transportation, through the removal of congested areas, and the creation of open spaces, the business of a city can be carried on efficiently, the health of the people improved, and that increased prosperity follows.

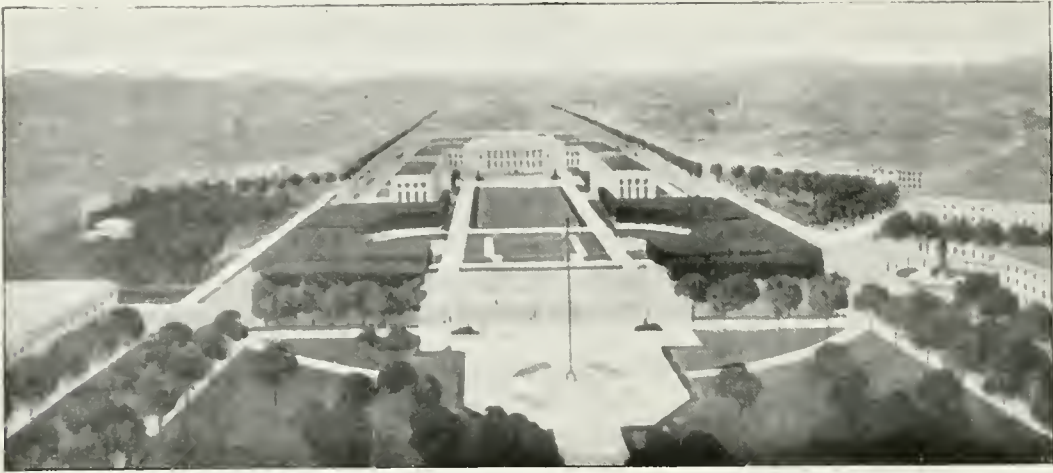
A great many of the American cities are at present constructing or about to construct civic centres for the centralization of municipal business and the adornment of the cities, and although a few may be mentioned they are only typical cases.



Philadelphia Parkway.

Denver, Rochester, and San Francisco will be shown to illustrate what is being created in this respect.

The adornment of city roads with architectural accessories to landscape gardening, which occurs in plantations similar to those in our own city at Victoria-parade, the



General View of the Civic Centre from the State Capitol, Denver, Colorado.

PLATE 26.

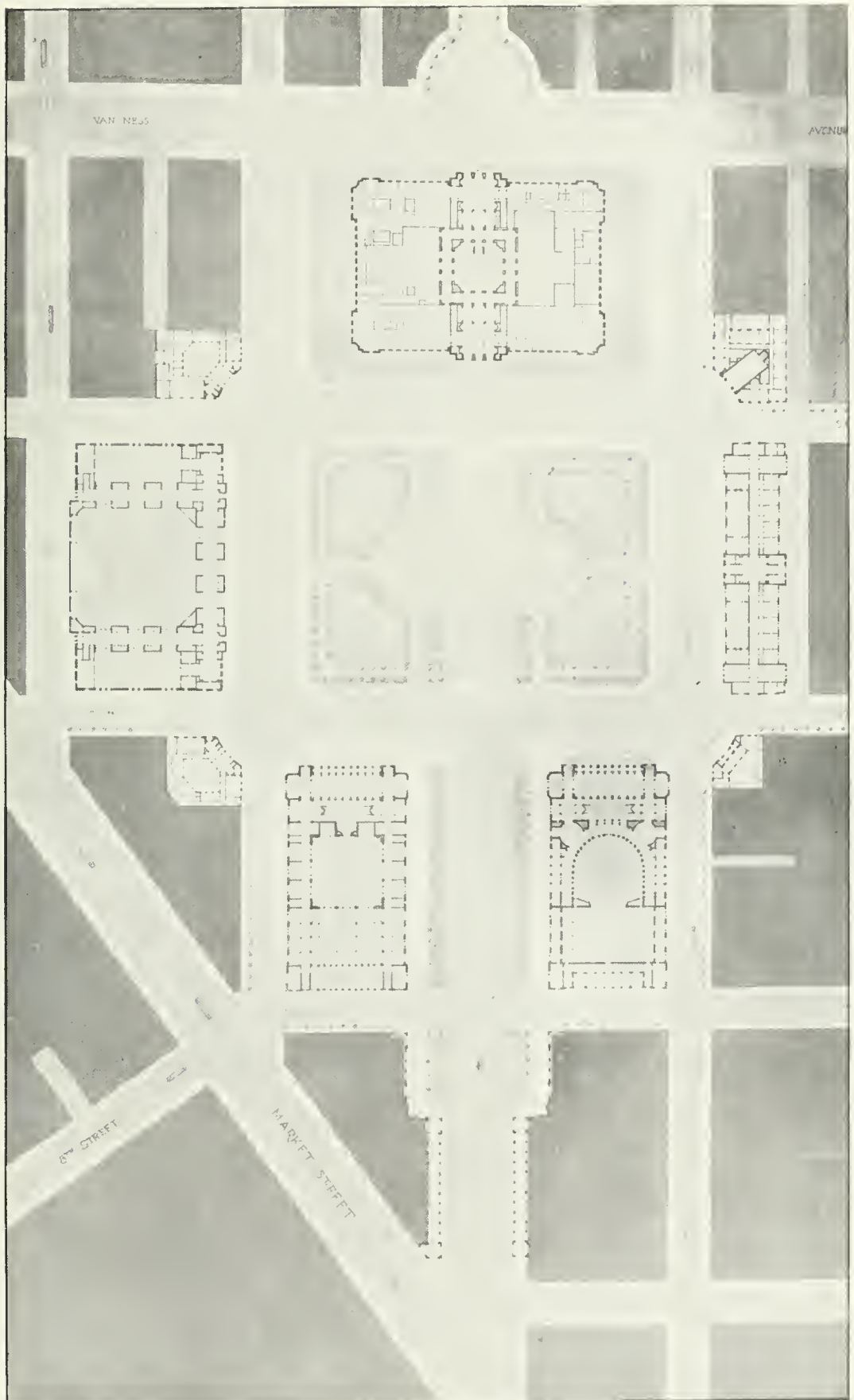
utilization of the old trail markers and other interesting historical features to form road terminals, the beautification of river drives and outlying roads, the design and construction of streets of the residential sections and the growth of the boulevard treatment show that the national instinct of America insists upon a beautiful city.



Civic Centre for Rochester.

PLATE 27.

The river side drive, New York City, winding round on the banks of the Hudson River, flanked with parks and gardens and commanding magnificent views of the mighty river, is one example.



San Francisco.—Plan of Civic Centre.

PLATE 28.

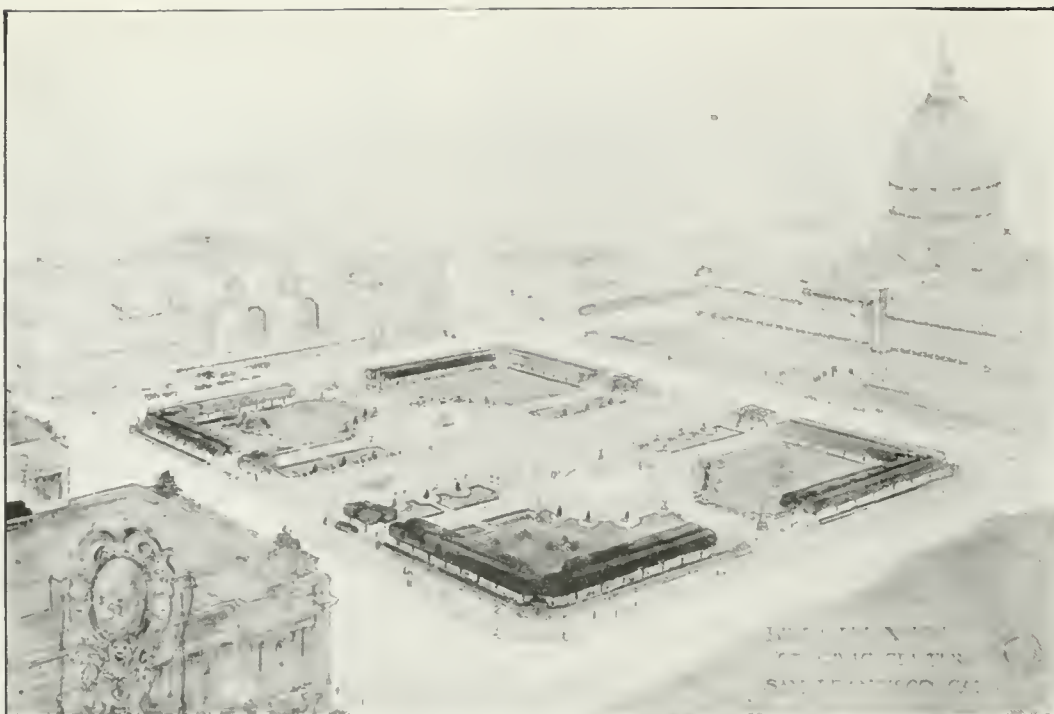
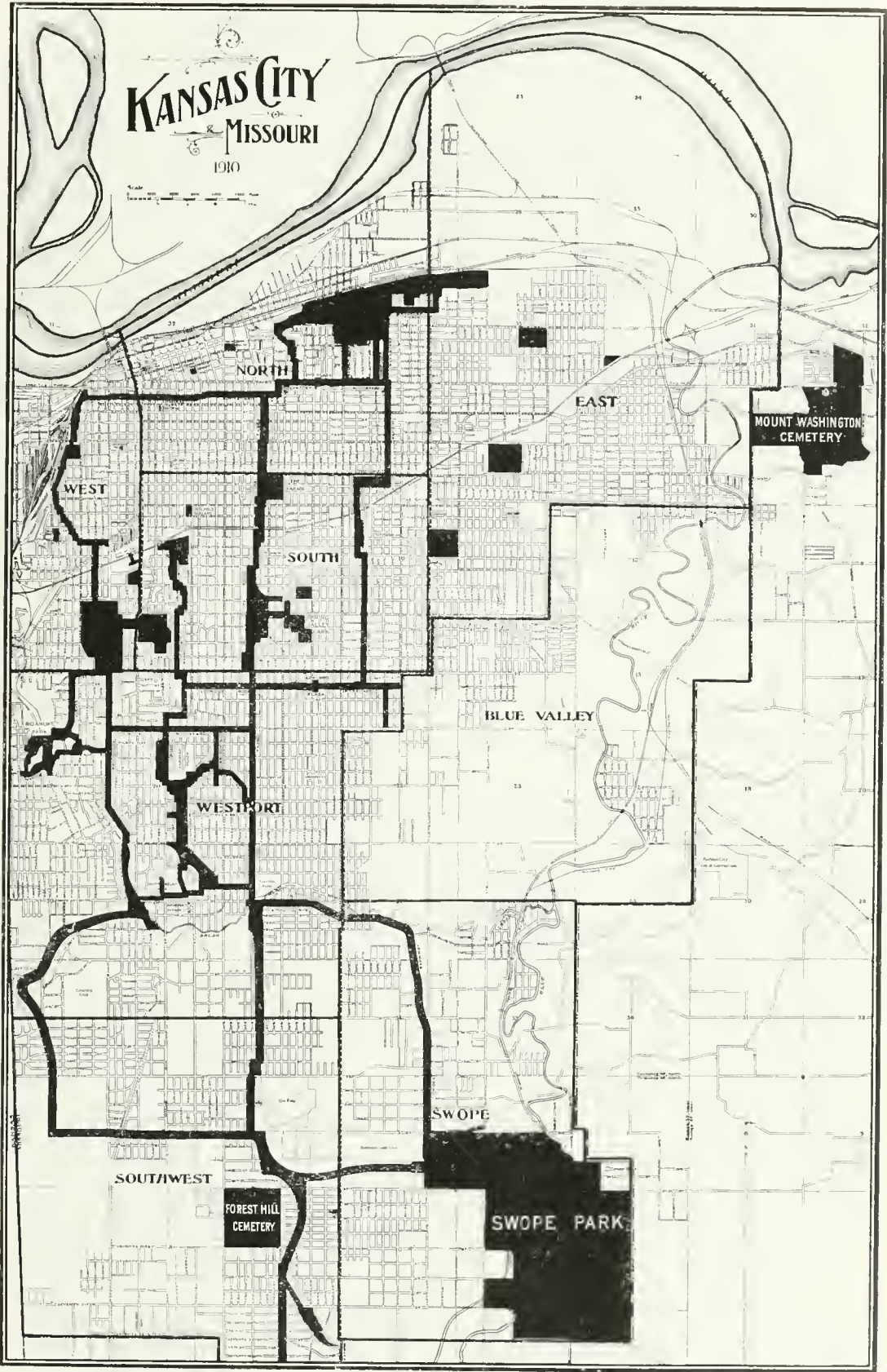


PLATE 29.—Bird's eye view of Civic Centre, San Francisco, Cal.



PLATE 30 AND 31. Riverside Drive, New York City.



Kansas City, Missouri.
Plan showing Parks and Boulevards.

Kansas City, Missouri, has over 130 miles of boulevards and park drives intersecting the city, as shown on the plan.



Boulevard, Kansas City, Missouri.
PLATE 33.

The boulevard is constructed as illustrated, which gives cool shaded walks, and it will be observed that the houses are all kept back to give greater width between building lines. The road macadamized surface is treated with crude oil, and costs annually about 1d. per yard for material and labour.



Pergola, Kansas City, Missouri.
PLATE 34

Where streets are constructed with a reserve between them a pergola is frequently constructed for the public to make use of as a pleasant resting place, &c. The columns and overhead beams are more or less covered with creepers of varied greens and beautiful flowers. The general effect is shown in the view. This one is stepped to follow the street grading.

The two following views show what can be done by converting an unsightly district into one of beauty. The first picture was taken along a slope overlooking the Missouri River, where nigger shacks had been built and untidy conditions reigned supreme.



Site of West Terrace before construction, Kansas City, Missouri.

PLATE 35.

It was decided by the city authorities to construct an outer boulevard or road connecting the city with its parks.



West Terrace completed, Kansas City, Missouri.

PLATE 36.

The west terrace was formed by grading the slope formerly occupied by nigger shacks, the city was linked up to the terrace by steps, and the whole effect resulted as shown.

The treatment of reserve terminals is shown in the next plates. The grade of the ground has been used to emphasize the feature, the ground of the reserve portion having been raised and a retaining wall with steps, architecturally treated as a whole, transforms a site which was likely to convey an idea of neglect and poverty to that expressing beauty and affluence.



The Paseo before treatment, Kansas City, Missouri.

PLATE 37.

The city of Denver, Colorado, has created beautiful streets, boulevards, and roads. The building laws which set back the building line from the property line and regulations which require lawns to be kept in proper order and the elimination of fences



The Paseo after treatment, Kansas City, Missouri.

PLATE 38.

as well as the parking system of the council itself on both sides of the street, have resulted in the formation of streets which are a continual source of delight to the citizens, and go far in the production of a healthy community.



Ninth-avenue, Denver, Colorado.

PLATE 39.



Fourteenth-street, Denver, Colorado.

PLATE 40.



Washington-street, Denver, Colorado.

PLATE 41.



Bannock-street, Denver, Colorado.

PLATE 42.



A Residence, Logan-street, Denver, Colorado.

PLATE 43.



Type of Residence Showing Approaches to Street, Denver, Colorado.

PLATE 44.

The road and street treatment has spread from the middle States to the west, and the following views were taken in Pasadena, lying close to the mountains near Los Angeles, Southern California.



Type of Residence, Denver, Colorado.

PLATE 45.

It will be noticed that the method of street construction and lay-out is similar to those of Denver and Kansas City, but naturally the foliage is more of a tropical character. The footpaths are of cement or concrete, and the roads are macadam treated with a crude oil carrying a heavy percentage of mineral asphalt and forming a perfect surface.



Street Treatment, Pasadena, California.

PLATE 46.



One of the Avenues, Pasadena, California.

PLATE 47.

The comfort and popularity of the bungalow in California has resulted in a new development connected with streets. These bungalows are grouped round an open space or court, with an entrance from the main road, emphasized by more or less ornate piers of masonry or brick, and supporting lamps for the purpose of illumination. They form very picturesque features, and quite a number have been built.



Bungalow Court, Pasadena, California.

PLATE 48.

The next illustration is taken from a more congested district near Los Angeles, where, although the frontages are not great, the law which necessitates setting the building back from the property line provides plenty of light and air.

Some of the bad effects of town planning on the checker-board system can be seen in the following views, which were taken in San Francisco. The streets were laid out in straight lines irrespective of the topography, and as a large area of the city is very hilly, I should say that 50 per cent. of the streets in this area cannot be used for vehicular traffic.



Street in outlying District, Los Angeles, California.

PLATE 49.

The first picture is a part of Philmore-street, where the grade is so steep that planking had to be secured to the footpath and cleats fastened on to them as a foothold for pedestrians. This section has since been broken up, and steps have replaced the sloping footpath, and as there are some hundreds of them it is to be avoided when possible.



Philmore-street, San Francisco, California.

PLATE 49.



Philmore-street Tram, San Francisco, California.

PLATE 50.

The second picture shows the rear end of an electric tram going down Philmore-street Hill. It is fastened to a cable and acts as a counterbalance to the tram coming up. All passengers have to change at the top of the hill from the ordinary street car, causing a good deal of inconvenience.

Philmore-street is one of the main entrances to the Panama Pacific Exposition, part of which can be seen in the distance, so that the confusion which took place at the top of the hill during the rush hours can well be imagined.

While America provides so much that can be followed with great advantage, so much that is beautiful and sensible and right, with organizations that are truly wonderful and efficiency hardly to be excelled, she gives an example in New York of what "not to do," and one which might be observed, with profit, by other nations.



Broadway (near Wall-street), New York City.

PLATE 50A.

The view of Broadway gives a fair idea of the development that has occurred near Wall-street. The legislation which allowed the construction of the huge skyscrapers, that have been erected in this business centre of the world to meet the extraordinary demand for office accommodation, caused enormous congestion of traffic by the housing of a huge population within a limited area, created problems for dealing with traffic and transportation which are almost insurmountable, increased land values disproportionately, and converted the streets into deep ravines.

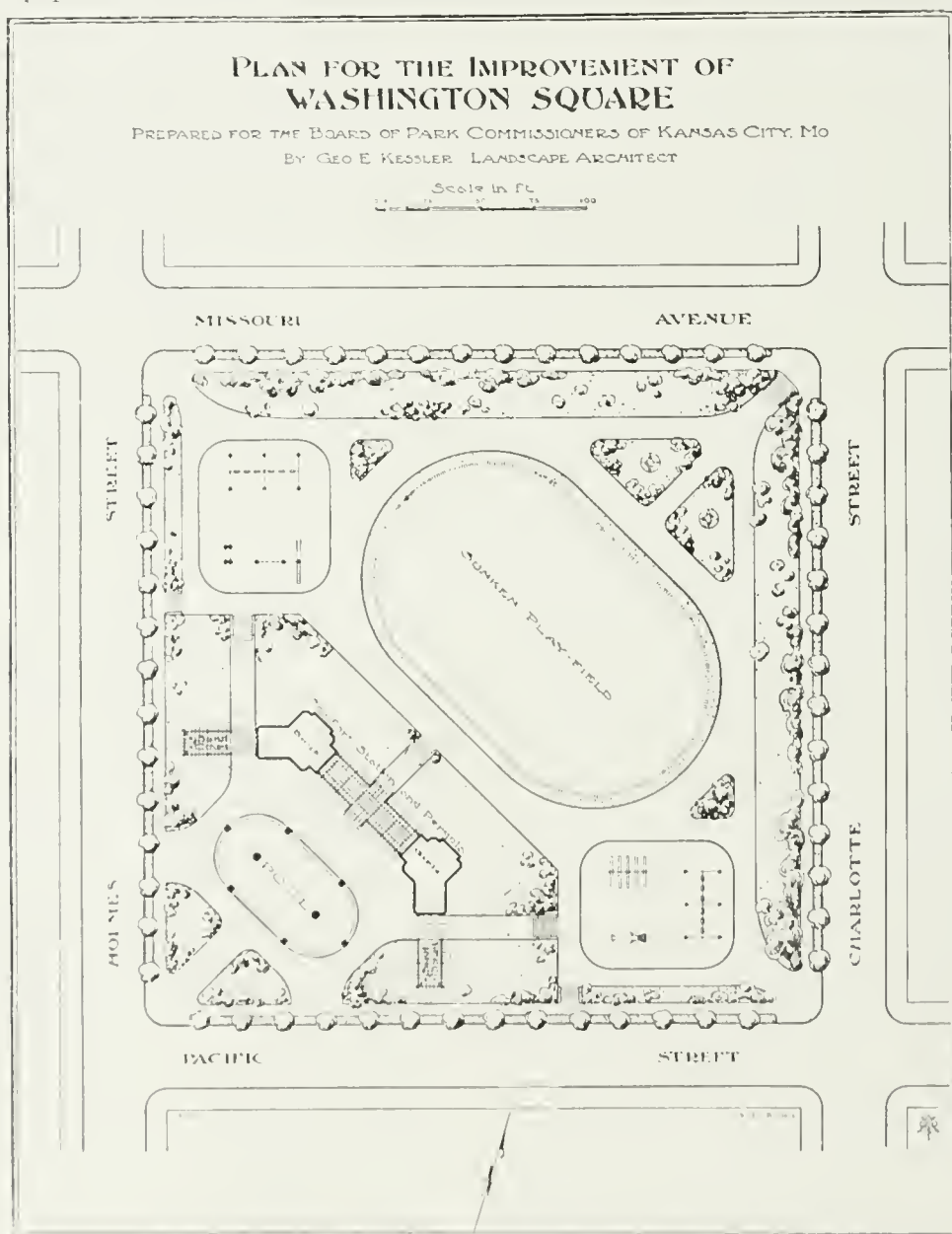
Other cities have realized, I think, by the experience of New York, that legislation controlling the height of buildings is necessary, and in most of them provision is made in regard to this question.

TRAFFIC.

Owing to the almost abnormal growth and increasing intensity of street traffic the problem of its proper control has been very difficult to solve in many cities, but there appears to be a general movement which by segregation enables the allotment of particular kinds of traffic to certain suitable streets. Thus, heavy traffic does not come into conflict with passenger traffic, tram cars are allowed only in the wide streets, the traffic generally is only allowed to stop on the nearest side of a cross street which is being approached and, when once again in motion, can only stop at a similar position at the next cross street.

PLAYGROUNDS.

America is more advanced in regard to the provision of playgrounds than most countries. Each city provides numerous well-equipped grounds both for boys and girls. A great many of these are placed in the parks: but in congested areas they are frequently placed on vacant lots, as shown in the picture taken in the City of St. Louis.



Playground, Kansas City, M.

PLATE 52.

Kansas City has 25 playgrounds, 56 tennis courts, and 10 baseball fields constructed and maintained by the city. Many of them are in the parks, but others are in the city. The plan of Washington-square is shown, and provides for a playfield, two gymnasiums, a wading pool, and a comfort station for boys and girls. Playgrounds of this type are under supervision.

The other views are from Denver, Colorado, and are typical of those in many other cities. Denver has fifteen fully equipped playgrounds, with an annual attendance of 280,000 children, and the city report states that playgrounds in congested areas have reduced juvenile delinquency. The police reports show they have materially reduced crime. Children who would otherwise be on the streets seek the playgrounds, and are under the care of experienced men and women, and the rough element is rarely found.



Playground, St. Louis.

PLATE 51.

Although primarily the playground is intended for play, the introduction of libraries now includes possibilities from an educational point of view. The story hour is also established, and crowds of children attend during this hour for amusement and enlightenment.



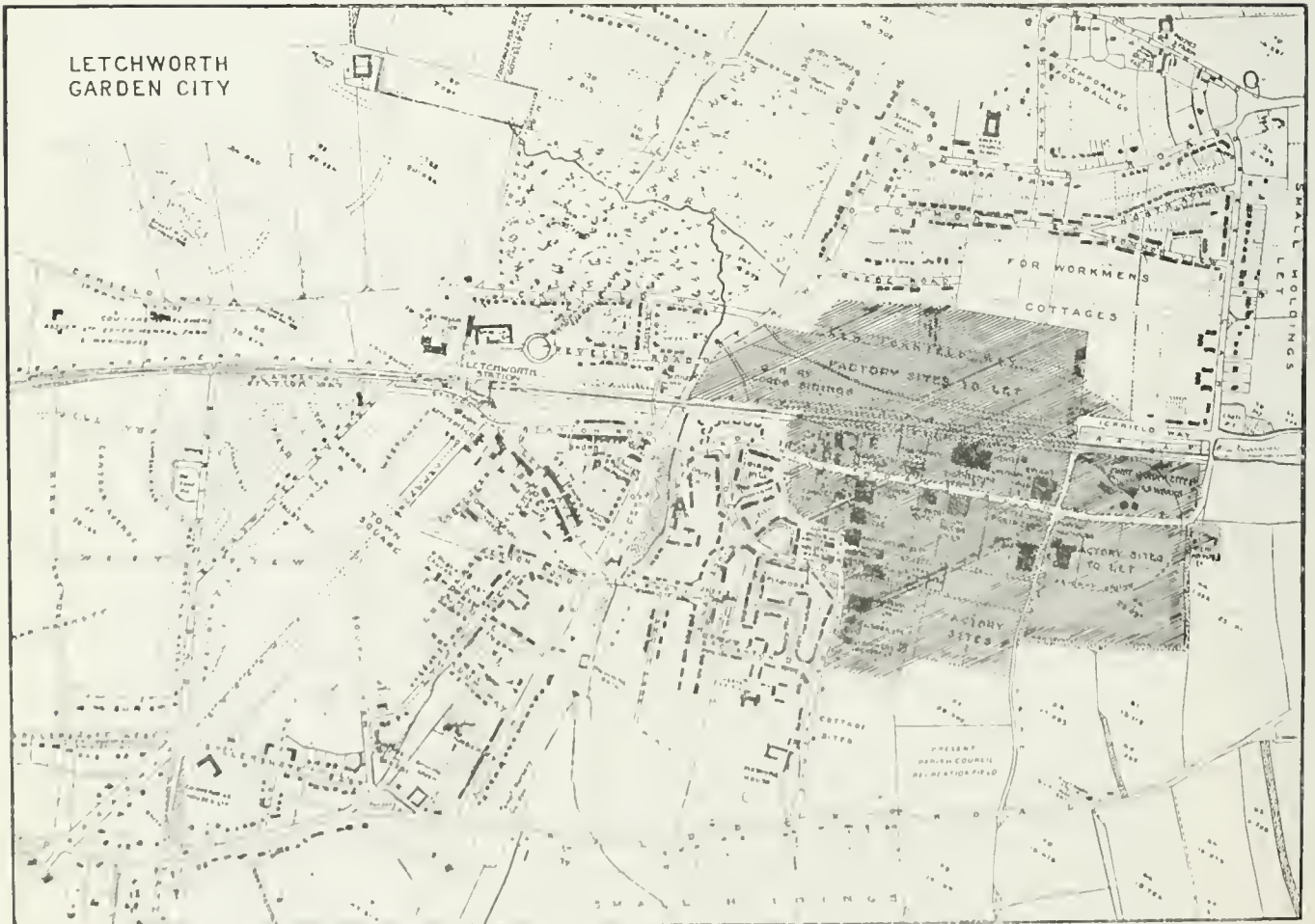
Park Playground, Denver, Colorado.

PLATE 53.



Playground. Denver, Colorado.

PLATE 54.



Plan of Letchworth Garden City.

PLATE 55.

GARDEN CITIES.

LETCHWORTH.

Letchworth was the first garden city established. It contains 4,566 acres, and is situated about 34 miles from London, and at the present time has a population of over 8,000, although nine years ago the population was only 400.

The maximum number of houses to the acre is twelve. One-third of the estate is being developed as a town, and two-thirds being retained round the town as rural and park lands. The freehold of the town is held as far as possible by the company, the shareholders of which are entitled to a cumulative dividend of 5 per cent. per annum, the surplus being returned to tenants and lessees.

There are about 30 different industries established in the town, and the agricultural belt of 3,000 acres outside the town is divided up into small holdings. The plan shows the lay-out of the city.

In 1903 the only buildings on the area shown consisted of a few farm houses, no railway station, and only two or three roads. There are now nearly 1,700 houses in addition to the factories.



Hillshot, Letchworth.

PLATE 56.

The main arterial roads have been arranged to accommodate the traffic for all time, the central avenue varying from 100 to 150 feet in width. The residential roads are narrow, for economic development in connexion with the smaller class of dwellings, and as Letchworth is a manufacturing city the majority of homes are for workmen. Low rents are therefore desirable, and cheap road construction enables a reduction to be made.

Picturesque lanes have been preserved, and houses are erected without destroying the charm of the surroundings.

The factory area is limited to that area shown hatched on the plan, and its situation on the east side of the town secures that feature in garden cities which provides for factory smoke and fumes being blown away from the residential area.

The concentration of factories reduces the cost of power distribution and the transportation of goods. Gas and electricity are supplied at low rates. It has been found that factories placed in open situations, with room for expansion, where there is plenty of light and air, do increase the efficiency of the individual and consequently are of greater value to the manufacturer.

Letchworth was created more or less as an experiment in the first place, in the belief that only by building a new city, on country lands, could all those deplorable conditions of housing be avoided which exists in established cities and towns: that by the development of beautiful surroundings and the preservation of features which were

naturally beautiful, ideal homes could be erected in their midst; that by transferring industries from crowded and unhealthy cities to a country district, with room to breathe and light to see, a community would be able to live in health, happiness, and prosperity instead of merely existing.



Croft-lane, Letchworth, on the Agricultural Belt.

PLATE 57.

Letchworth has proved by its success and development that these ideals are not only possible, but have become an established fact; and profiting by this experience America is following in the steps of the First Garden City by the establishment of industrial cities, although not on the same financial basis or under the same type of management.

TORRANCE.

The first garden city that has been established in America is situated about 17 miles from Los Angeles, on the main road to San Pedro, its seaport town, which lies 8 miles beyond Torrance, the garden city referred to, but which is described by the company responsible for its creation as "The modern industrial city."

The city derives its name from its founder, Mr. J. S. Torrance, and the general plans were prepared by Mr. Frederick Law Olmstead, of Boston, Massachusetts.

The site is on slightly undulating ground, the central park, civic centre, and El Prado being on the most elevated portions.

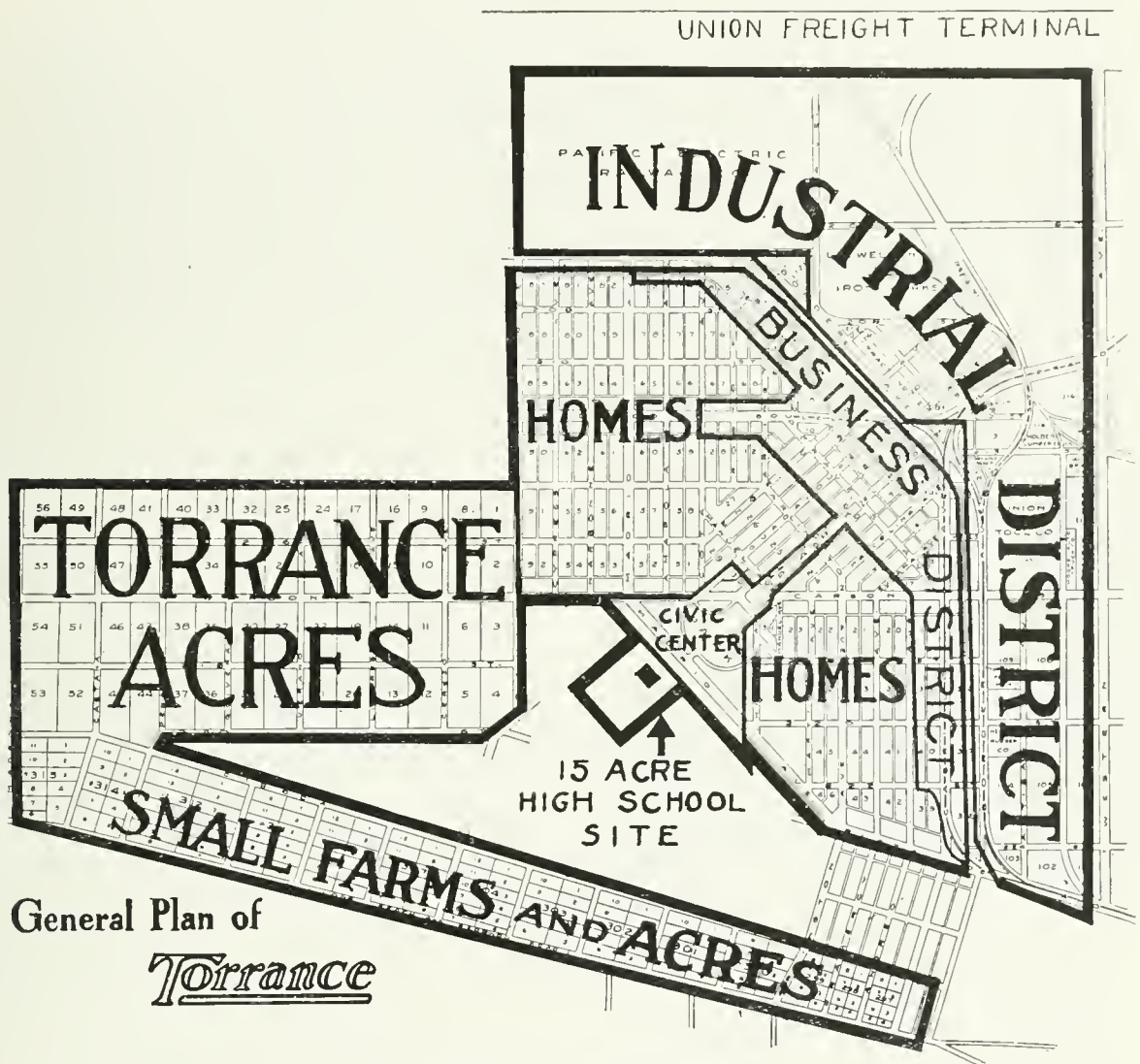
The plan of the city, as will be seen, is L-shaped, the intersection of the two arms being designed to give diagonal communication between them; but, within the arms themselves, there is no provision for direct communication to the centre of the city, and the streets are laid out on the checker-board system.

There are three main zones the inner one being reserved for residential purposes, the middle for business, and the outer one is devoted entirely to industries, a separate area, apart from the main scheme, being utilized for agricultural pursuits.

The whole of the city equipment, such as sewerage, water supply, electric light, paved streets, fire protection, &c., was installed before any of the property was offered for sale, all these utilities being placed, except for street lighting, &c., in the 20-ft. alleys, which divide the properties and are between the main streets.

There is a good water system from twelve artesian wells, capable of supplying 15,000,000 gallons in 24 hours, which for irrigation purposes is sold at 1s. 3d. for a 1,000 cubic feet.

Torrance is a little more than two years of age, and at the present time has six factories located and many business premises established, as well as a good residential development.



Plan of Torrance Industrial City, California.

PLATE 58.

Outside the area shown on the plan there is to be located a foreign quarter, and the restrictions provided in the declaration of the company state that no portion of any property shall be sold, leased, rented, or occupied by any Hindoo, Negro, Chinese, or other Asiatic except in the foreign quarter.

A maintenance tax has been established on the single tax basis.

The city is linked up with adjoining centres by adequate electric railway systems, and, although there were not many natural beauties to preserve, over 250,000 trees and shrubs have been planted, and a similar number ready for planting.

The workmen's homes are well built, and are surrounded by lawns and gardens. These homes are sold to employees of the various industrial plants on terms almost as easy as the usual rental basis.

The homes shown in the plates below are some of the types built for and sold to the employees. They all vary in design. Some are constructed of concrete, a small number of brick, but the majority are of wood. They cost from £400 to £500, and are rented at from 12s. to 18s. a week.



Workmen's Homes, Torrance, California.

PLATE 59.



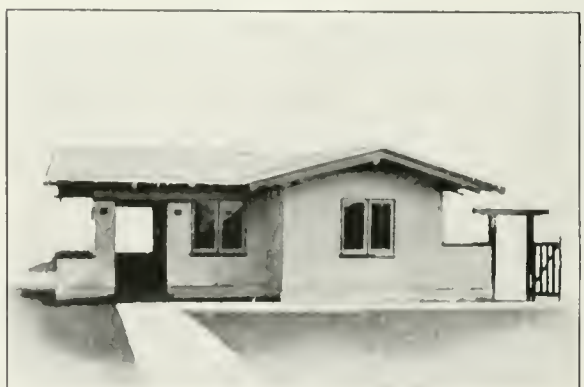
Interior View of the Cosy Home of one of Torrance's Workmen.



The Architecture of the Workingmen's Homes varies in every case. There is no sameness, which is usually found in the ordinary Industrial City.



The Living Conditions at Torrance are conducive to Health and Happiness for the Workman and his entire Family.



Every Convenience for Comfortable Living.

Workmen's Homes, Torrance, California.

PLATE 60.

Torrance is in the heart of a 3,500-acre tract of country, and was established primarily to provide for the growing industrial needs of Southern California.

It was founded on the broad principle of establishing a community where there could be secured practical, spacious, moderate-priced sites for the ever-increasing industries, and to develop a manufacturing centre along ideal lines, and under conditions which would permit the highest efficiency in men and best standards of products at a minimum cost.

ATASCADERO COLONY.

Probably one of the most remarkable and successful developments in the history of the world, with regard to the establishment of a city and its surrounding country, was created by the desire of one person who wished to obtain a few acres in California, so that he might lay out the area of land in orchards and groves, and live among them in independence.

This was the desire of the editor of an American paper, the *Women's National Weekly*: but, having had no experience in horticulture or agriculture, guidance was necessary, together with expert advice in regard to soil, the proper planting, selection, and care of the trees until brought to successful bearing, and, after that, with regard to marketing, preserving, canning, storage, &c.

With these thoughts, realizing that the cost of all this expert advice would be enormous if borne by one individual, it occurred to him that possibly there were thousands of other people who wanted to secure a home and live in the same manner as himself, but were deterred by the dread of isolation or rural life, with its discomforts and inconveniences, by limited knowledge of horticulture, ignorance of local conditions, markets, scientific methods, and all the other attendant difficulties. So he announced through his paper his ideas in regard to the venture, and undertook to find and purchase a large property in California, ideally suited in every way for the establishment of a great community. An immense area was to be purchased wholesale in one tract: the most eminent experts engaged to take charge of every feature of the project: the property surveyed and plotted into 5 and 10 acre orchards and groves; exhaustive tests made of every acre to determine its peculiar chemical, bacteriological, and moisture content, and thereby determine what each acre was best adapted for. Good roads, water and drainage systems and other utilities were to be provided: two model cities built—one a civic centre, with beautiful public institutions, and the other an industrial city, to locate the general manufacturing and industrial activities of the community. That during the period of clearing, cultivating, planting, of road construction, of building the civic centre, and industrial buildings, all these matters were to be left entirely in the hands of the commission of experts, while the purchasers were to remain at home and earn their present incomes until such time arrived when they could come and live on their properties, in readiness for use and enjoyment, instead of as in the ordinary method, which takes years to overcome the preliminary work before any benefit is gained.

This plan, as announced, met with instant and nation-wide response. A limit of 10 acres was placed, and within a few weeks over 20,000 acres of the proposed community had been placed under option.

The plan has been carried out on the exact lines as announced. The property was purchased on 4th July, 1913, and is situated about midway between San Francisco and Los Angeles, in San Louis Obispo County, the dimensions of the land being 10 miles long and 7 miles wide. The plan shows the estate lying in a great horseshoe bend of the mountains.

The prices fixed for the land include the clearing, cultivation, planting in the choicest grades of the nursery stock and their care for two years, as well as the road formation, water supply, the civic and industrial buildings, and the general improvements.

A part of the scheme provides that under certain conditions the tract purchasers become personally interested in the earnings of every institution, industry, natural resource, and source of income of the colony.

Two hundred miles of roads have been made specially for quick and cheap transportation. From the civic and industrial centres the main roads spread out in all directions like a fan. These are crossed by zone roads, and in the junctions so formed all packages, mail, &c., will be delivered. The children will gather there in the morning for transportation to school in the civic centre and return to the local centre at night. All produce also gathers at the zone centre for transportation to the industrial centre.

Every provision has been made for parks, playgrounds, theatres, an open-air stadium, golf links, &c.

It is estimated that a population of 8,000 to 10,000 people will be resident in the colony by January, 1916. Included in the construction work are more than 200 miles of roads, 180 miles of water mains, several hundred bridges and culverts, 40 miles of

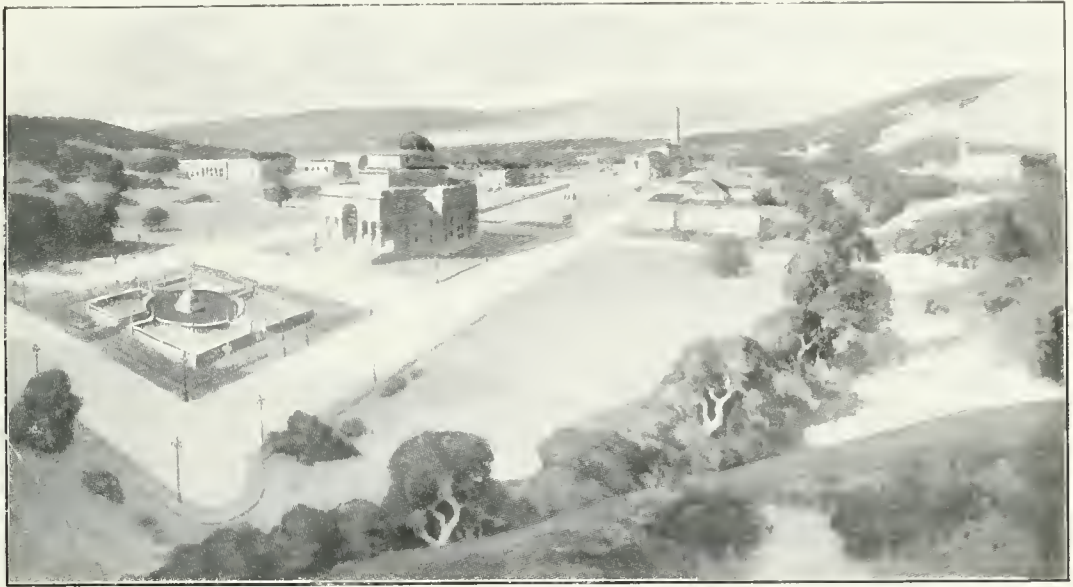


Map of Atascadero Colony

Shading shows lots sold to July 1, 1914.

Plat map of the great Atascadero Colony, ten miles long by seven wide, showing its division into orchard tracts, small farms, parks, the restricted residence district surrounding the Civic and Industrial centers, the road systems, and the plan of the Civic Center group, with the great Permanent Residence Apartment Building overlooking the entire Civic Center and the valley for miles beyond. The shaded portions show the orchards and residence sites sold up to July 1st, 1914. It is estimated that many thousand people will be residents in the Colony by the end of 1915, by which time the vast public improvements, the Civic and Industrial Centers, the orchard planting and the road construction are planned to be to a large extent completed. This great estate is nearly twice the size of New York City proper (Manhattan Island).

sewers in the residence section, the planting of 1,500,000 fruit trees, and the making of 5,000,000 bricks for buildings. Residential allotments are large, none being less than 75 feet frontage and from 150 to 300 feet deep. The prices of these allotments include street formation, water mains, and sewerage system.



Civic Centre, Atascadero, California.

PLATE 62.

The illustration of the civic centre shows the grouping of all the civic, social, educational, and administrative buildings as they will be when completed.

The entire commercial and merchandising industries of the colony will be housed in one great department store 425 feet long, located on the north side of the civic centre, approached by a series of terraces in front rising from a sunken garden, and at the rear from a traffic way at a level.



Department Store, Atascadero, California.

PLATE 63.

This immense store is designed to be one of the most completely equipped modern stores. Freight cars will run direct from the railway into the basement of the building. The main floor is a modern emporium, the top floor contains a club room, a café, &c., and the building is to be completed during 1915.

The permanent residence apartment building is a new idea. It is a fine building, fireproof throughout, equipped with every modern convenience, library, club rooms, and detached hospital. Living rooms are divided into suites. There are general rooms, sun parlors, open-air sleeping porches, while surrounding the building there are 10 acres of flower gardens.

This institution is designed to provide the right of residence with every possible care and comfort, and entire independence, for life, at a fee fixed according to the age of the resident. It is to be completed and ready for occupation early in the spring of 1916.



The Permanent Residence Apartment Building, Atascadero, California.

PLATE 64.

Other buildings to be erected and forming part of the civic centre include the Art Academy and Conservatorium of Music, the Agricultural College, School of Industrial Arts and Crafts, the Opera House, and the Administration Building.

The general plan of the development of the colony was from the civic centre outwards. The first zone of orchards was a belt of 2,000 acres surrounding the civic centre. This area was planted in 1914, the roads constructed and everything completed; then a second zone; and finally the third and outer zone is being dealt with, and the whole scheme is scheduled to be completed by 1917.

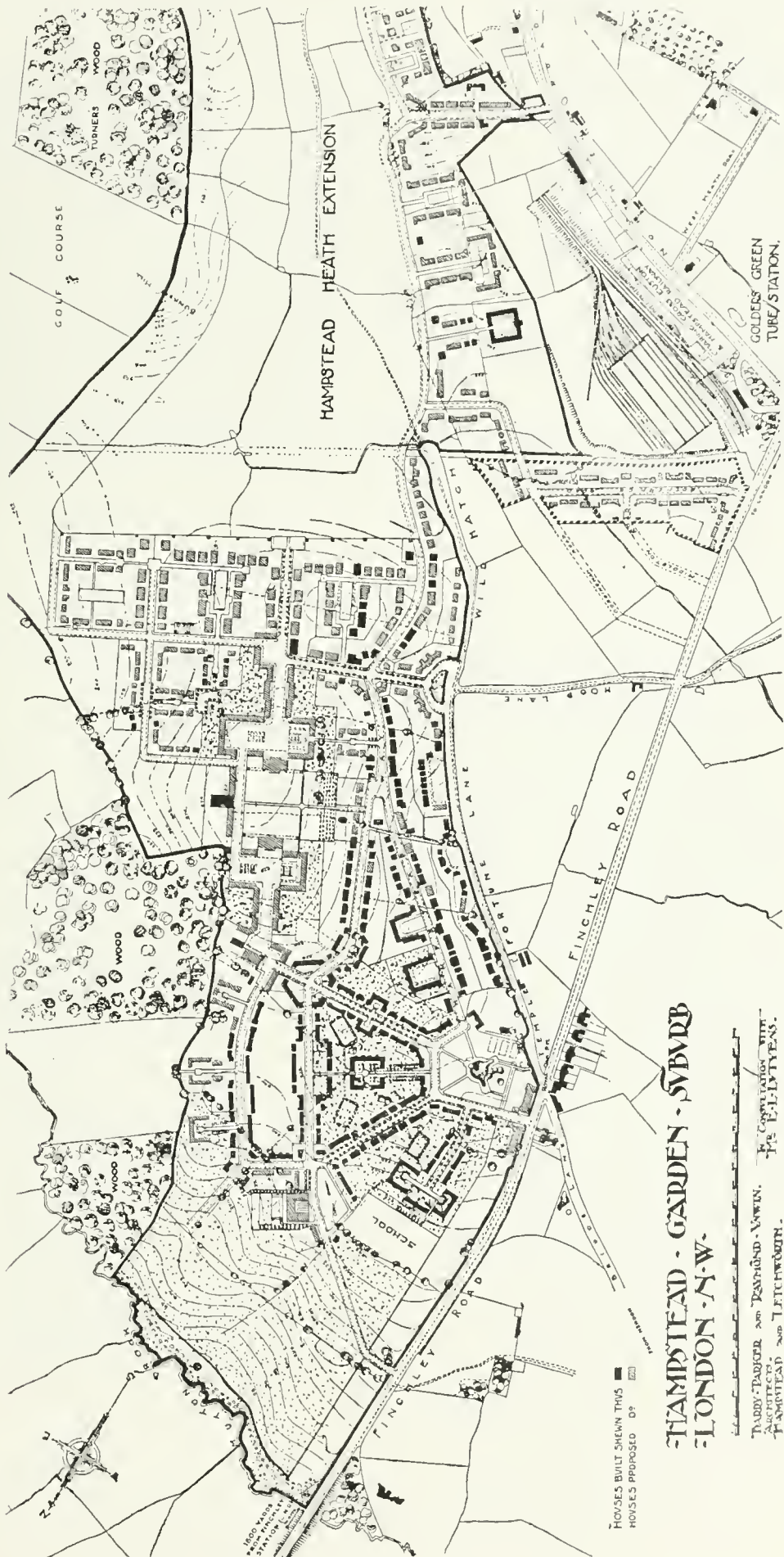
One very interesting phase of the scheme is the extension of the principal of segregation from the city to the horticultural and agricultural lands, the possibility of which arose through the extensive tests made by the experts in the early period of development. These experts having decided to what particular purpose the land was best suited, the conditions of purchase, subsequently drawn up, stated definitely to what use the land was to be put. Consequently, there are orange-grove zones, prune zones, apple zones, walnut zones, and so on through all the possible industries, while all land unsuitable for successful production has been reserved for parks, &c.

The Garden City movement originated in England and has spread in various forms through Great Britain, Canada, and the United States of America. Although it was created as a protest against the disgraceful housing and living conditions which prevailed among the working-class inhabitants of congested industrial centres, the experiment afterwards clearly demonstrated the practical and economic soundness of such developments.

There is not the same necessity for garden cities in Victoria or Australia in comparison to Great Britain, where the conditions of existing ancient cities are difficult to remedy, or even to the same extent as in America, where the populations of cities have grown so rapidly that, through lack of foresight in city planning, there are in many cities conditions almost if not quite as bad as in Great Britain. But we have a decided and pressing need of wise planning for the future growth of all our cities and towns, for which provision should be made at the earliest opportunity. We cannot afford to allow the continuance of existing methods in this country. They do not provide for maximum health conditions; they are not economic; and they are not progressive. The geographical isolation of Australia and its limited population demand serious consideration and action with regard to this question, at no distant date, in the interests of the health and increase of our people, for the encouragement and expansion of our industries, for the development of our natural resources, and for promotive national welfare.

GARDEN SUBURBS.

By way of illustration I have chosen Hampstead Garden Suburb as the most comprehensive scheme in regard to this movement in Great Britain.



Hampstead Garden Suburb.

PLATE 65.

This most beautiful development owes its origin to Mrs. S. A. Barnett, the wife of the late Canon Barnett, whose close association with the people of the East end of London, and knowledge of their physical as well as spiritual needs, prompted her to bring about an improvement to the gloomy and monotonous average London suburb.

The land was purchased in 1907, and consisted of 240 acres of undulating ground, having a fair proportion of trees, hedge-rows, and pasture lands. Since that date further purchases have been made, and the whole scheme covers 655 acres.

The estate was laid out by Mr. Raymond Unwin, F.R.I.B.A. Its growth has been phenomenal: 1,600 houses have been built and occupied, with an estimated population of over 5,000 people. It was designed for the development of a community having a certain unity of a social character, and that all classes should be housed within the area of the estate.

The plan shows an irregular-shaped site, with a principal frontage to Finchley-road, which connects the suburb to Golders Green tube station; thence to London within a few minutes.

During the expansion of a city and the development of its suburbs, experience shows that usually immense suburbs are frequently peopled almost entirely by one class or another of the community, resulting in a one-sided and limited outlook upon the conditions of living.



In a Garden Suburb, Hampstead, near London.

PLATE 66.

While it is neither desirable nor possible to mix the dwellings of all classes together indiscriminately, the promoters of the suburb have proved that it is not only desirable but possible, by proper planning, that all classes of a community may and should live together in close relationship; that a wide variety of types and classes of people produces a healthy, interesting, and open-minded society.

About 70 acres have been devoted to cottages and small houses for the industrial classes, with a limit of twelve houses to an acre. The relationship between the ground value and the building to be erected was fixed, by the promoters, not according to the market value of the land, but rather in proportion to its value for a particular purpose. Consequently, land values for small houses are considerably less than land values in that portion of the estate devoted to larger dwellings.

By Act of Parliament facilities were given for the right to construct carriage drives not exceeding 20 feet in width, but limiting their length to 500 feet, and that houses on each side of the drive should be not less than 50 feet apart.

These small roads vary in width, suitable turning-places are provided, and quiet sites obtained away from the noise and dust of the main roads.



Hampstead Garden Suburb—Asmunds-place.

PLATE 67.



Hampstead Heath—Roads through the Woods.

PLATE 68.

The topography of the site has influenced the lay-out of the roads, many of which are both curved and straight, in order to secure good gradients and for economy in construction.

The principal roads are 40 feet wide, grass lawned, and planted with trees, and the architectural work has been treated for harmony of effect. Great care has been taken in fixing the exact positions of buildings on the site, and the materials used in the constructional work has been limited, to obtain a total effect, as being preferable to the inclination, under ordinary conditions, which contributes to the use of materials for the purpose of giving emphasis to one particular building without any consideration being given to the adjoining houses.

The plan of the suburb provides for a city square and a village green, around which are grouped the churches, official and social buildings for the welfare, education, administration, and recreation of the community, as well as for the preservation of the beautiful woodlands and rural roads and pathways, which are utilized as means of communication to groups of houses. Provision is also made for open spaces, recreation grounds, fields, golf links, tennis courts, and other amenities not associated with ordinary estate development, and for which about 100 acres of the estate has been set apart.



Hampstead Heath -The Woods.

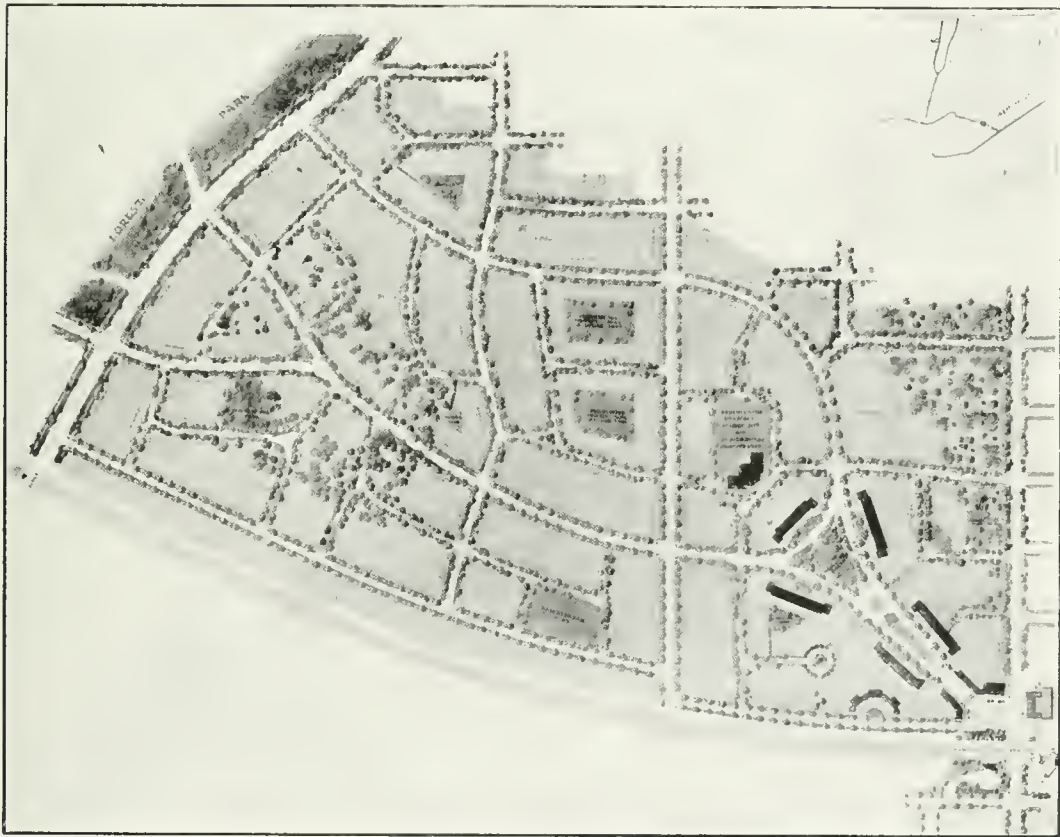
PLATE 69.

Various methods have been employed in the building operations. The Trust controlling the suburb has confined itself to erecting homes for its workers, the institute, and a home for poor children. A large number of houses have been built by co-partnership societies, with rents varying from 5s. 9d. to 40s. per week. Every property-owner must take up £50 in stock in the company, for which interest is paid at 5 per cent. per annum. The profits for some years have resulted in a dividend of 1s. 6d. in the £1 on all house rents. Other companies and builders have constructed dwellings for rental and for sale. Total rates are 5s. 6d. in the £1; the average cost of the cheapest houses £300. The health officer's report gives the death rate as 3·2, and infantile mortality as 11·2.

The success of the Hampstead Garden Suburb and the benefits which have been derived from it by the citizens residing there have resulted in similar developments being undertaken in other parts of Great Britain, and there are, in consequence, some 40 garden suburb and village schemes in existence which embrace the features and fundamental principles used in the creation of Hampstead.

The planning of garden suburbs has been introduced into America and utilized as an attractive method of land development and home building from a purely business point of view, but even under this system, where the restrictions, &c., affecting the property are set forth in a declaration to purchasers, prospective owners know exactly how a particular district or adjoining allotments are to be built upon; and, although there is no financial benefit to be derived by the purchaser as in Great Britain, the movement has been welcomed by the American people, and its influence is being felt throughout the United States of America and in Canada.

Forest Hill Gardens, Long Island, New York, is a development of this nature. It is a business investment by the Sage Foundation Homes Company, and includes playgrounds, open spaces, recreation facilities, attractive housing, tree planting, lawns, &c. The estate consists of 142 acres, and has been laid out by Frederick Law Olmsted,



Forest Hill Gardens.

PLATE 70.

of Boston, while Grosvenor Atterbury, of New York, controls the architectural work. The suburb is intended for people of moderate means, as the land is too valuable for the erection of workmen's homes.

Two 80-ft. roads are carried through the estate, and a boulevard 125 feet wide is provided. The roads are ample and convenient. The residential streets are quiet and picturesque, and there are several enclosed parks for the exclusive use of people living in the surrounding allotments.

The company has spent £250,000 in the erection of buildings in ten different groups, a large number of which are built in block formation, as an economic development, but which the company claims is compensated by the open spaces.

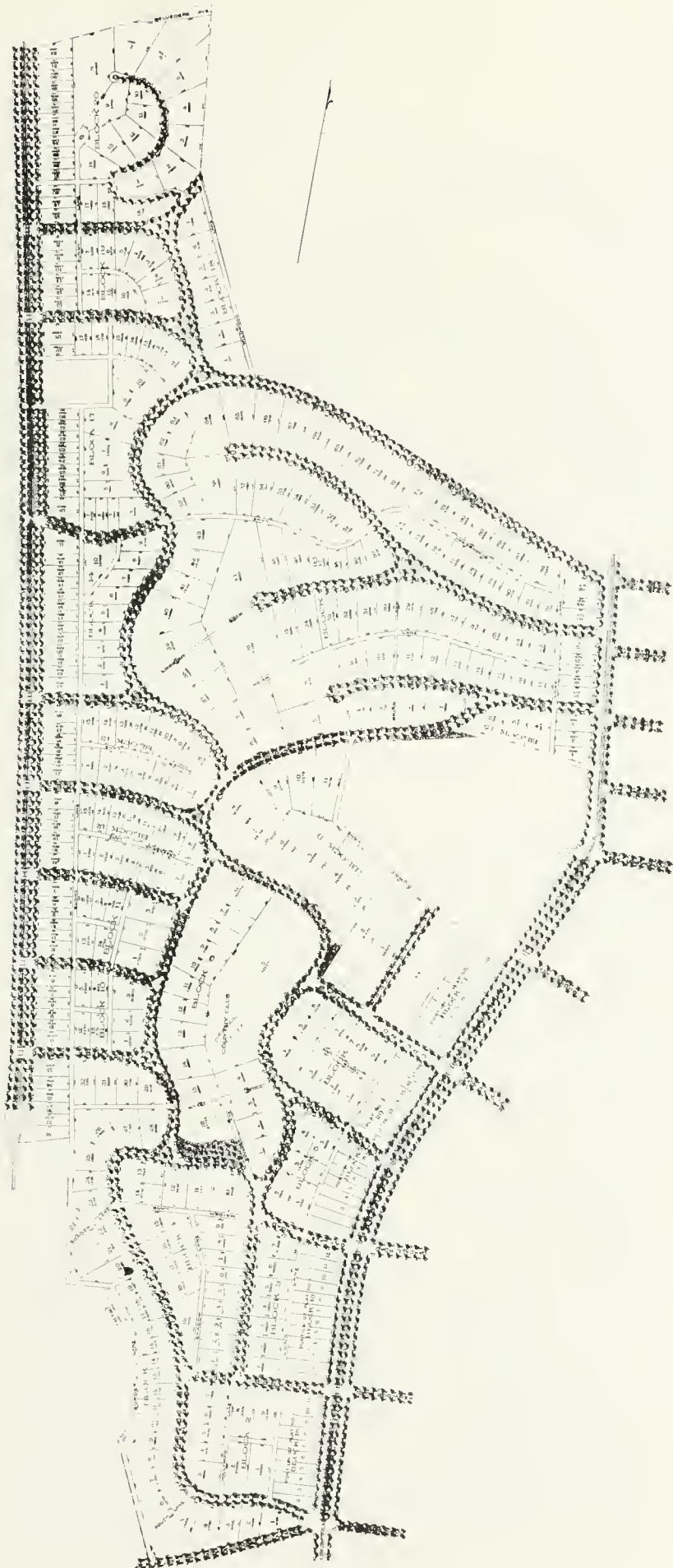
Granting that there is plenty of light and air to each block, I feel that there is but little advantage over the ordinary type of terrace we have in Australia. The home feeling and influence arising from a separate building in a picturesque setting is wanting, and although the greater portion of the estate is being subdivided for single dwellings it seems a pity that these blocks should have been erected.



Forest Hill Gardens.

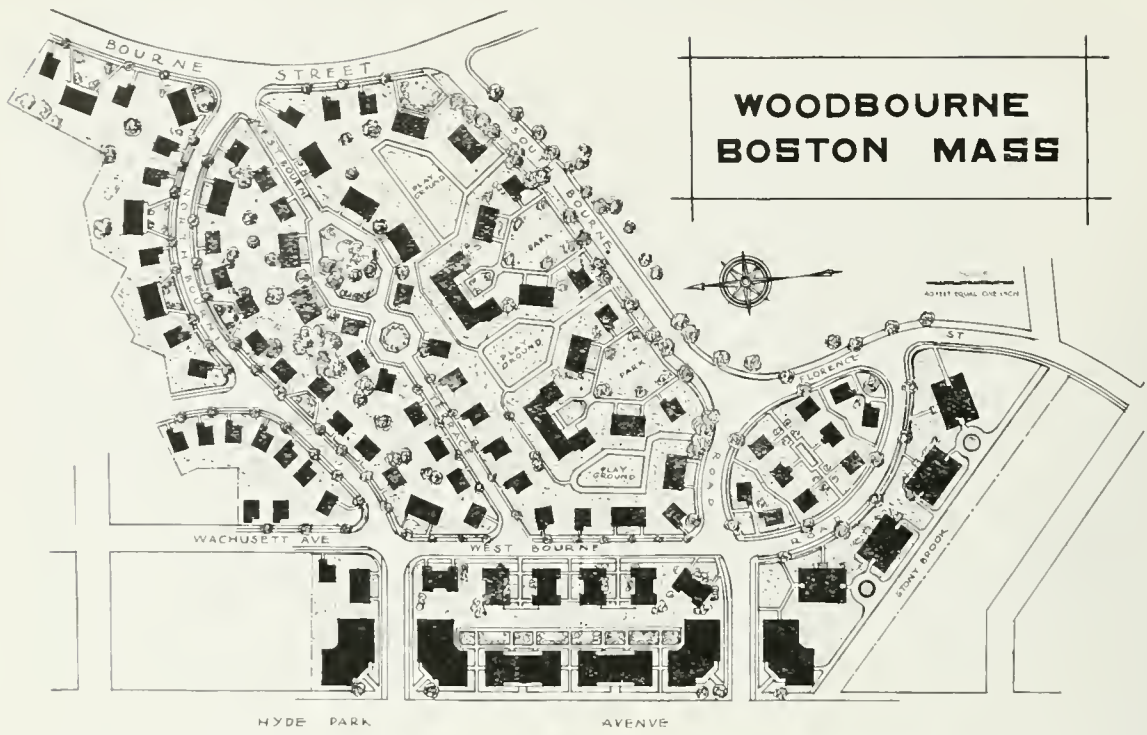
PLATE 71.

Roland Park, Baltimore, is an estate on undulating ground well laid out with tree-planted roads curved to the contours of the site, and lanes at the rear of all allotments. The road terminals and junctions are treated well. The residences are mostly well designed, and are all of a good type, suitable for the homes of business men from the city, $3\frac{1}{2}$ miles distant. The suburb is a commercial development.



Roland Park, Baltimore.

Woodbourne is a small development a few miles from Boston, Massachusetts, carried out by a company as a business proposition. The influence of the garden suburbs of Great Britain is clearly seen even in the design of the buildings.



Plan and Two Views of Woodbourne, Boston, Mass.

The large blocks on Hyde Park-avenue are apartment houses each containing twelve suites consisting of four, five, and six rooms, and bath.

The roads are tree-planted. There are open spaces, playgrounds, and parking.

At Kansas City, Missouri, the homes in the older portions of the residential areas have been greatly influenced by the beautiful parking and extensive boulevard system which has been carried out by the city authorities, and consequently there is a uniform beauty of homes; but recent home building in the country club district, a few miles out from the city, and consisting of 1,000 acres, together with the Sunset Hill Estate, of 1,000 acres adjoining, which has been planned, developed, and sold by one man as a purely commercial venture, contains one of the finest groups of high-cost residences which I saw during my tour. The scheme includes many of the features of garden suburb planning, and almost the whole of the areas are fully built over, ample provision having been made for open spaces, &c.



Country Club District, Kansas City, Missouri. (Two Views).

PLATE 74.

The phenomenal growth of Los Angeles, California, has resulted in the encroachment of the city upon the former residential areas, and the creation of new suburbs in more distant districts. Garden suburb influences have caused many improvements in the lay-out of a number of these developments, which, combined with the parking and boulevard systems now commonly used in American towns, have enabled the inhabitants to obtain homes in permanently restricted residential areas with beautiful surroundings.

Another phase of the movement can be seen in the treatment of dwellings in existing cities. At Philadelphia, it has been the custom to construct homes in long solid rows from street to street, covering the whole frontage of a city block. but in the development of the Girade Estate, consisting of over 100 city blocks, a portion of the estate is being built up with semi-detached houses having grass plots, open spaces



Girade Estate Homes, Philadelphia.

between buildings, shade trees, broad streets, and a group of dwellings has been constructed covering a large area, which is supplied with hot water from a central powerhouse, flowing at all times for heating and household purposes. Arrangements are also made for the removal of all house rubbish, and each dwelling is supplied with a proper receptacle by the Girade Estate, and other features introduced to lessen the labour to the occupants and increase their comfort. The innovation is a great improvement on former methods, but much could yet be done by avoiding the monotonous repetition of the architectural design, as shown in the accompanying views. The dwellings are for rental only.

With regard to the introduction of the Garden Suburb movement into Australia, there are some features employed in planning garden cities and garden suburbs, both in Great Britain and America, which could not be included in any design for a town in this country, under existing conditions, unless the sites were within the area controlled by some sewerage scheme. However, I think that is neither a reason nor an excuse for a continuance of these conditions. One of the most important and vital necessities for any modern town development is a complete sewerage and sewage disposal scheme with an adequate water supply in order to obtain proper sanitation and hygienic safety for the community. Although we have been content with ancient and primitive ways of dealing with sanitary matters up to the present time in the vast majority of our cities, towns, and villages, there is now every reason why we should encourage and advocate the introduction of proper sanitary methods. We hope that our industries and our population will increase and become prosperous. Everything should be done that will assist towards that end. The initial cost of these sanitary schemes should be considered as part of the necessary outlay for the comfort, health, and convenience of the inhabitants and as important at least as the formation of roads, footpaths, lighting, &c.

The absence of a sewerage scheme prevents any reasonable approach towards the ideals of town planning. The enclosed parks, for instance, formed as a central reserve within the surrounding allotments of any block, and used by the property-owners in that area as a pleasant, picturesque, secluded, and safe recreation reserve for their families, would be impossible under our existing conditions in any of our country cities or towns. One can imagine the appearance of such a reserve surrounded by, say, twenty allotments, and having as many outhouses and high paling fences to greet the eye, instead of trees, shrubs, lawns, and open spaces as arranged for in a modern town.

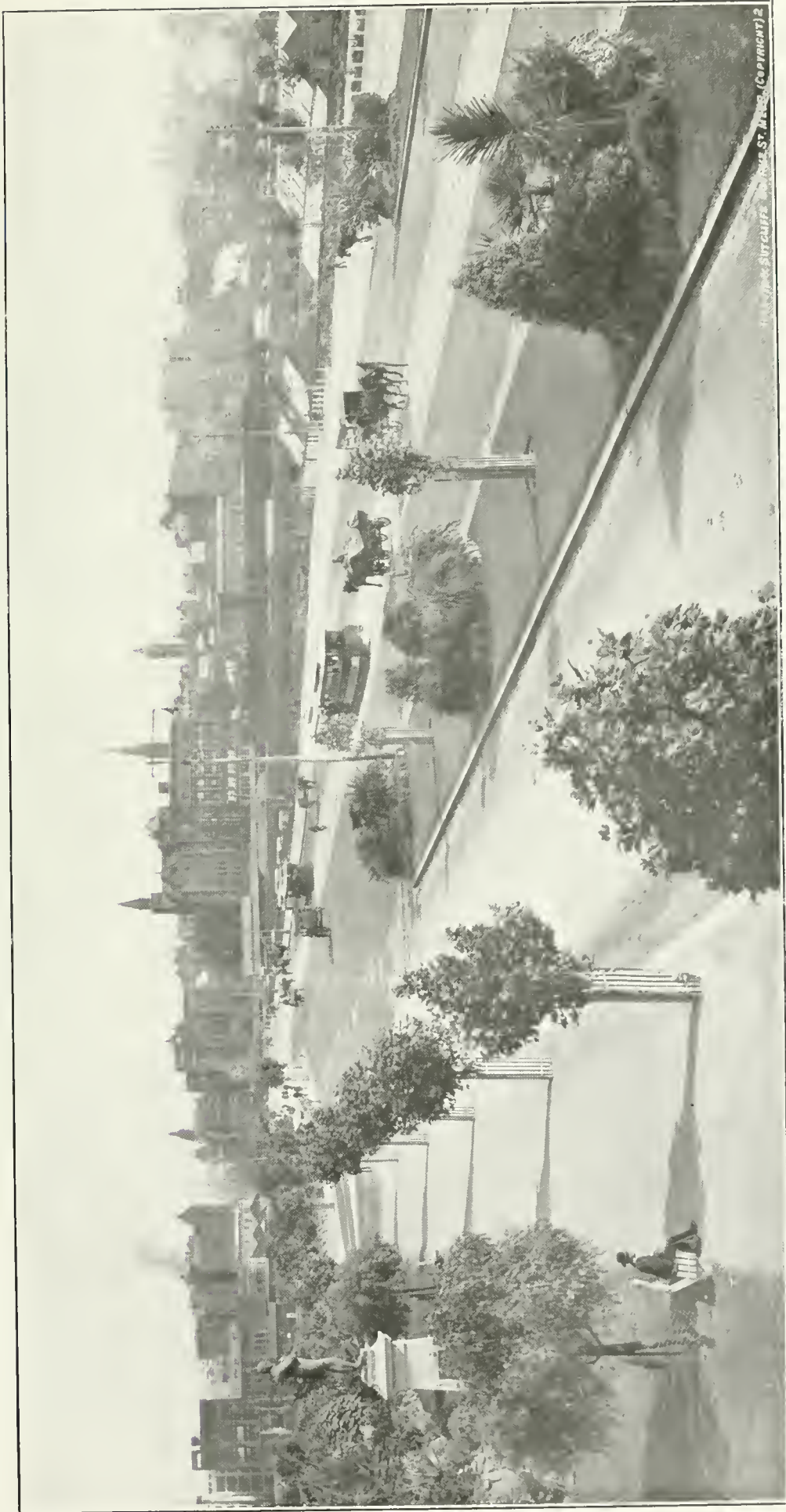
Until we awake to the urgent necessity for the introduction of town planning legislation, which will provide for all the advantages that are being experienced by the inhabitants of other countries, we cannot expect to have those sanitary conditions and healthful surroundings which have lowered their death rates, improved their vitality, and increased their efficiency and progress.

In some respects we are better off in regard to the planning of our cities than they are in other countries. The City of Melbourne has many advantages which the majority of cities in other countries do not possess. It is indeed fortunate for us and for all future generations, too, that the old 3-chain roads have been retained and developed to the full extent of their original dimensions. Along these roads, at one time, stock grazed their way to the city markets, but they are now subdivided for the segregation of traffic and form magnificent main arterial roads on the north and south of the city. See plate 78.

Through unfortunate circumstances, or lack of foresight, the main arterial road to the city from the south has been mutilated by Wellington-street, running from St. Kilda-road to Dandenong-road, and by High-street, as a continuation of St. Kilda-road to Brighton-road.

St. Kilda-road, Dandenong-road, and Brighton-road, each 198 feet wide, form main arterial roads, stretching away out for miles through the suburbs, attracting and collecting the traffic to and from the metropolis.

If Melbourne, and the suburbs south of the Yarra, progress and expand, as in every probability they will to a great extent during the next decade or two, the congestion arising through the narrowness of Wellington and High streets will necessitate the resumption of land and the demolition of buildings for their widening, in order to meet the future traffic demands, and, in so doing, the city authorities will be carrying out similar work to that which has been considered necessary in other progressive cities abroad, under the same conditions, at an enormous cost, the only difference being that if this resumption can be undertaken in the near future, large sums of money will be saved that must be spent if the work is postponed indefinitely.



The main arterial road to Melbourne from the South.
St. Kilda Road, showing subdivisions for the segregation of traffic.

PLATE 78.

Similar conditions occur at the north of the city, where Sydney-road is reduced from 198 feet to 66 feet right through Brunswick for miles in length. The traffic problems of this narrow, main business street, with its double tram lines, have become very serious already. How they will be surmounted in the future, if there is a possibility of solution, remains to be seen: but almost insurmountable difficulties will present themselves,



PLATE 79.

which could not have existed if town-planning legislation had been provided. However, these examples, and numerous other cases of faulty planning which we have to put up with, should help considerably the introduction of legislation to prevent their repetition.

Alexandra-avenue, with its equestrian, automobile, cyclist, and pedestrian tracks, its beautiful trees, shrubs, and flowers, its lawns, fountains, and rockeries creates a particularly interesting drive to the city by the river side, and illustrates the possibilities of a national parkway from St. Kilda-road to Studley Park along the banks of the river.

With regard to the city itself, the railway system, docks, &c., on the west, the River Yarra, the railway system, and Government Domain on the south, and the Treasury and Fitzroy Gardens on the east will prevent or interrupt seriously any future expansion in those directions. Consequently, in all probability the growth of Melbourne will spread out over a fan-shaped area in a northerly direction.

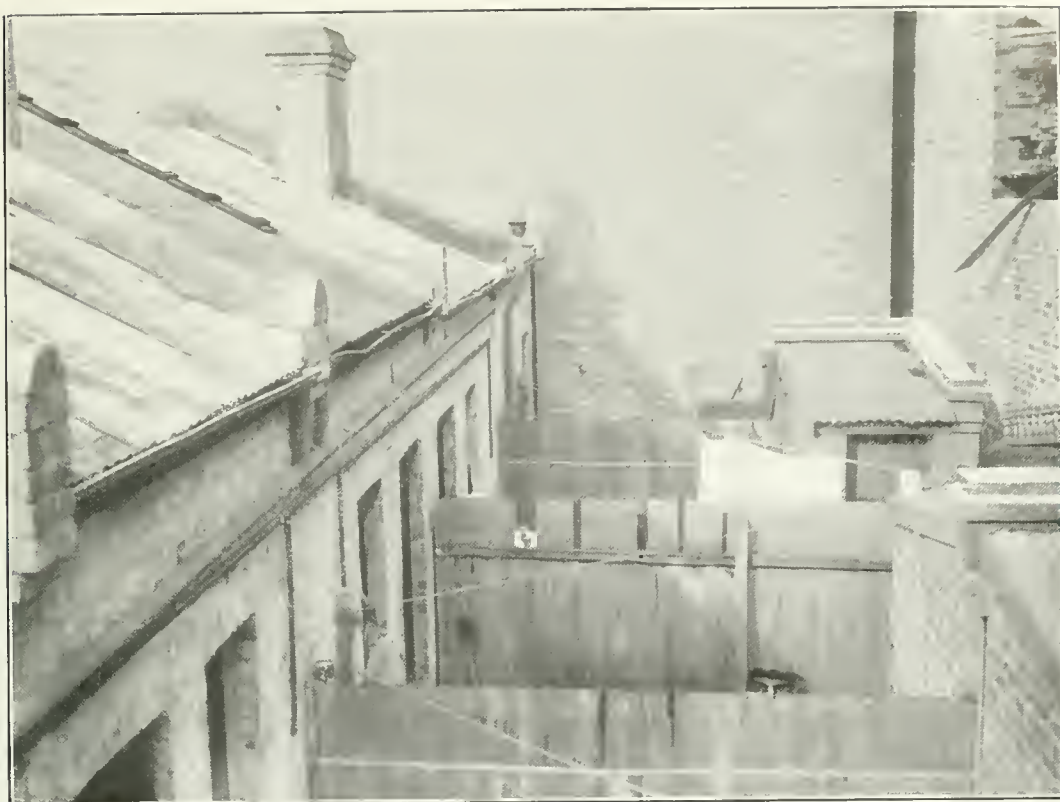
There are comparatively few residential properties now within the city limits, and it should not be many years before these must be removed for the business necessities and business premises required by the city development.

This crowding out, combined with the desire of, or necessity for, many people to be near their business centre, has caused serious congestion in all the suburbs nearest to the city proper even in these days of what might be termed the infancy of Melbourne.

Fitzroy, Collingwood, Carlton, and North Melbourne have areas that are terribly congested; while, on the opposite side, that zone between South Melbourne, Port Melbourne, and Montague, the same state of affairs exists. Small houses, badly lighted and ventilated, having small yards, and with frontages to narrow streets are huddled together for the housing of the working classes.

That these conditions do exist will be shown by four photographs taken in different localities.

Plate 80 illustrates the appearance and extent of the so-called back-yards to four houses in Leichardt-street, Melbourne. Each house contains three rooms about 10 feet x 12 feet. The front of the buildings is erected on the footpath line: there are no baths,



Leichardt-street, Melbourne.

PLATE 80.



Little Napier-street, Fitzroy.

PLATE 81.



Doubledans-lane, Port Melbourne.

PLATE 82.



Airdale-place, Carlton.

PLATE 83.

coppers, or wash-troughs; and they are all occupied by Europeans, who pay 14s. rent for each house. These yards are about 16 feet long and 12 feet wide, each containing a toilet convenience in one corner, and the whole surrounded by high walls of the adjoining properties.

Plate 81 shows to what extent congestion is being encouraged and created in small streets, where narrow-fronted houses are built together in block formation right up to the street line in order to obtain a few square feet of room at the rear of the dwellings, for the purposes of a yard. The allotments are shallow in depth. The whole area is gloomy and miserable in winter, and in summer hot, stifling, and evil-smelling.

Plate 82.—Doubledans-lane, Port Melbourne, is 4 ft. 6 in. wide. There are four dwellings crowded together, each containing three rooms and with frontages to a high iron fence. The picture and the conditions generally plead for better treatment.

Plate 83.—Airdale-place, Carlton. Six houses in a lane 4 feet wide and facing a blank wall. Could anything be more depressing than this dismal-looking group. "Airdale"! What irony! Yes, and a gutter for the drainage running all the way through it.

Such areas are a continual menace to the health of the city and within which epidemics of various kinds are liable to occur at frequent intervals. Life in them is detrimental to the proper physical and mental development of children, and its influence generally is apt to produce that degeneracy for which the slums of the old world are famous.

This congestion, with its disastrous results, and the laws which allow its creation, should surely be amended without delay. What we have within the metropolitan area exists more or less in all other cities and towns of Victoria.

We are following in the steps of many cities in Great Britain and America, which ignored, avoided, or postponed the treatment of congested areas in the early stages of the cities' development and prosperity, to find, when forced to take up the subject, that vast sums of money were required and had to be spent in order to remedy the defects caused by want of foresight, proper legislation, and treatment, and which could have all been saved if a town planning Act had been in force.

Legislation which will provide for removing all the defects of our existing congested areas, and for the proper future development of all our cities and towns should, therefore, be provided as early as possible, not only for the sake of economy, but for the health and betterment of our citizens and for the creation of housing conditions which will produce a virile and efficient race of ambitious and progressive inhabitants for the future government and welfare of our country.

I desire to express my appreciation of the courtesies extended to me by every one I met during my tour, for the great interest they took in my mission, and for the facilities they gave me to gain important information and printed matter, as well as permission to use same in my Report; but I would like to mention particularly the following gentlemen for their very great assistance and kindness, without which I feel that I could not have carried out my inquiries with any degree of success, and to them I offer my sincere thanks.

GREAT BRITAIN.

London---

The Agent-General for Victoria and Staff.
Mr. W. E. Riley, Superintending Architect, London County Council.
Mr. Raymond Unwin, F.R.I.B.A.
Mr. Lanchester, F.R.I.B.A.
Prof. S. D. Adshead, F.R.I.B.A. (Town Planning, University of London).
Mr. E. G. Culpin, Garden Cities Association.
Mr. Henry Vivian, Co-partnership Tenants Association.
Mr. H. R. Arday, National Housing and Town Planning Association.
Mr. Ian MacAlister, Secretary, R.I.B.A.

Edinburgh—

Sir Thomas Hunter, Town Clerk.
Mr. A. H. Campbell, M. Inst. C.E., City Engineer.

Aberdeen—

Dr. Gordon, Town Clerk.
Dr. Hay, Health Officer.

Glasgow—

Mr. Stenhouse, Deputy Town Clerk.

AMERICA.

Washington, D.C.—

His Excellency the British Ambassador, Sir Cecil Spring Rice.
 Mr. O. Wenderoth, Supervising Architect, Treasury Department.
 Mr. A. P. Davis, Chief Engineer, Reclamation Service.

Philadelphia—

Dr. Hollis Godfrey, President, Drexel Institute.
 Mr. A. W. Crawford.

Baltimore—

Mr. Palmer, Architect.

New York—

Mr. Bert L. Fenner, Architect (Secretary, American Institute of Architects).
 Mr. A. W. Brunner, Architect.
 Mr. Grosvenor Atterbury, Architect.
 The Sage Foundation Company.

Boston—

Mr. Frederick Law Olmsted, Landscape Architect.
 Messrs. Killim and Hopkins, Architects.

St. Louis—

Mr. Wright, Architect.
 Mr. Lloyd, Architect.
 Mr. D. F. Davis, Parks Commissioner.

Kansas City—

Mr. Benedict, City Engineer.
 Mr. Sumner, Secretary, Civic Club.

Chicago—

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 Mr. George E. Hooker, City Club.

Denver—

Mr. O. Thum, Park Commissioner.
 Mr. O. B. Thum, Manager, Publicity Department.

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Mr. Octavius Morgan, Architect.
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Mr. W. B. Faville, Architect.
 Prof. C. Derleth, California University.
 City Architects Board—
 Messrs. Howard, Reid, and Meyer, Architects.
 Mr. Mark Daniels, C.E.
 Mr. H. T. Cory, C.E.

I have the honour to be, Sir,

Your obedient servant,

J. C. MORRELL.

